

UNITED STATES DISTRICT COURT  
EASTERN DISTRICT OF NEW YORK

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IN RE PAYMENT CARD INTERCHANGE FEE  
AND MERCHANT DISCOUNT ANTITRUST  
LITIGATION

FILED UNDER SEAL

**MEMORANDUM & ORDER**  
05-MD-1720 (MKB)

This document refers to: ALL ACTIONS  
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In December of 2020, several parties<sup>1</sup> in this multidistrict litigation filed a combined five

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<sup>1</sup> The moving Plaintiffs consist of (1) the Equitable Relief Class, which was certified under [Federal Rule of Civil Procedure 23\(b\)\(2\)](#), *DDMB, Inc. v. Visa, Inc.*, No. 05-MD-1720, [2021 WL 6221326](#) (E.D.N.Y. Sept. 27, 2021); (2) the Target Plaintiffs, the 7-Eleven Plaintiffs, and The Home Depot (collectively, the “Direct Action Plaintiffs”), which are not members of a class, *In re Payment Card Interchange Fee & Merch. Disc. Antitrust Litig.*, No. 05-MD-1720, [2017 WL 4325812](#), at \*3 (E.D.N.Y. Sept. 27, 2017), *order set aside on other grounds*, No. 05-MD-1720, [2018 WL 4158290](#) (E.D.N.Y. Aug. 30, 2018); and (3) Elgin Ave. Recovery, LLC, which has filed its own separate complaint, (Elgin’s Am. Compl., annexed to Mot. for Leave to File Under Seal as Ex. A, Docket Entry No. 8222-1), and has agreed to rely on the 7-Eleven Plaintiffs’ experts at trial except in regards to damages, (Letter dated May 26, 2020, Docket Entry No. 7949).

The Defendants consist of the Visa and Mastercard networks as well as “various issuing and acquiring banks” (the “Bank Defendants”). *In re Payment Card Interchange Fee & Merch. Disc. Antitrust Litig.*, [330 F.R.D. 11, 18](#) (E.D.N.Y. 2019). “At the beginning of this litigation . . . Visa and Mastercard were effectively owned by their member banks.” *Barry’s Cut Rate Stores Inc. v. Visa Inc.*, No. 05-MD-1720, [2019 WL 7584728](#), at \*3 (E.D.N.Y. Nov. 20, 2019). In 2006 and 2008, “Mastercard and Visa, respectively, made initial public offerings (‘IPOs’), becoming publicly traded individual companies.” *Id.* However, Plaintiffs claim that the alleged anticompetitive practices have “continued despite the networks’ and the banks’ more recent attempt to avoid antitrust liability by restructuring the Visa and [Mastercard] corporate entities.” *Id.*; (Equitable Relief Class Action Compl. (“Equitable Relief Class Compl.”) ¶ 1, annexed to Szanyi Decl. as SJDX4, Docket Entry No. 8520-1; *see also* Sixth Amended 7-Eleven Compl. (“7-Eleven Compl.”) ¶¶ 78–79, annexed to Szanyi Decl. as SJDX1, Docket Entry No. 8520-1 (stating that “the IPOs did not change the essential character of” Visa and Mastercard’s “combinations in restraint of trade”); Second Amended Target Compl. (“Target Compl.”) ¶¶ 78–79, annexed to Szanyi Decl. as SJDX3, Docket Entry No. 8520-1 (same); First Amended The Home Depot. Compl. (“Home Depot Compl.”) ¶¶ 120–34, annexed to Szanyi Decl. as SJDX2, Docket Entry No. 8520-1 (claiming that Visa’s and Mastercard’s “post-IPO structures . . . were designed to perpetuate, and not to disturb, the anticompetitive conduct detailed in this Complaint”).)

motions for summary judgment and partial summary judgment,<sup>2</sup> and nineteen motions to exclude expert testimony.<sup>3</sup> Plaintiff Elgin Ave. Recovery, LLC (“Elgin”) also moved to join the memorandum supporting one of the motions for summary judgment and many of the memoranda

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<sup>2</sup> (Defs.’ Notice of Mot. for Summ. J. (“Defs.’ Mot.”), Docket Entry No. 8067; Notice of Target Pls.’ Mot. for Partial Summ. J. (“Target Pls.’ Mot.”), Docket Entry No. 8097; Equitable Relief Class Pls.’ Notice of Mot. for Partial Summ. J. (“Equitable Relief Class Mot.”), Docket Entry No. 8150; Notice of 7-Eleven Pls.’ & The Home Depot’s Mot. for Partial Summ. J. (“7-Eleven & The Home Depot Mot.”), Docket Entry No. 8184; Defs.’ Notice of Mot. to Excl. Pls.’ Expert Opinions on EMV Chargebacks & for Partial Summ. J. (“EMV Mot.”), Docket Entry No. 8138).

<sup>3</sup> (Defs.’ Notice of Mot. to Excl. Opinions of Dr. Reto Kohler (“Kohler Mot.”), Docket Entry No. 8101; Defs.’ Notice of Mot. to Excl. in Part Opinions of Prof. Robert G. Harris (“Harris Mot.”), Docket Entry No. 8104; Defs.’ Notice of Mot. to Excl. in Part Section 1 Opinions of Prof. Jerry Hausman (“Hausman Section 1 Mot.”), Docket Entry No. 8081; Visa and Bank Defs.’ Notice of Mot. to Excl. in Part Section 2 & Debit Opinions of Prof. Jerry Hausman (“Hausman Section 2 Mot.”), Docket Entry No. 8084; Defs.’ Notice of Mot. to Excl. in Part Opinions of Prof. Joseph E. Stiglitz (“Stiglitz Mot.”), Docket Entry No. 8074; Defs.’ Notice of Mot. to Excl. Opinions of Mansour Karimzadeh (“Karimzadeh Mot.”), Docket Entry No. 8077; Visa and Bank Defendants’ Notice of Mot. to Excl. Expert Testimony Concerning Visa’s Fixed Acquirer Network Fee (“FANF Mot.”), Docket Entry No. 8070; Defs.’ Notice of Mot. to Exclude Rep. & Testimony of the 23(b)(2) Pls.’ Expert Dennis W. Carlton (“Carlton Mot.”), Docket Entry No. 8086; Defs.’ Notice of Mot. to Excl. Opinions of Stephen C. Mott (“Mott Mot.”), Docket Entry No. 8080; Defs.’ Notice of Mot. to Excl. Opinions of David P. Stowell (“Stowell Mot.”), Docket Entry No. 8075; Notice of Direct Action Pls.’ Mot. to Excl. Portions of Rep. & Opinions of Def. Expert R. Garrison Harvey (“Harvey Mot.”), Docket Entry No. 8090; Notice of Direct Action Pls.’ Mot. to Excl. Rep. & Opinions of Def. Expert Glenn Hubbard (“Hubbard Mot.”), Docket Entry No. 8108; Notice of Direct Action Pls.’ Mot. to Excl. Rep. & Opinions of Def. Expert Barbara E. Kahn (“Kahn Mot.”), Docket Entry No. 8114; Notice of Direct Action Pls.’ Mot. to Excl. Rep. & Opinions of Def. Expert David J. Teece (“Teece Mot.”), Docket Entry No. 8135; Notice of Direct Action Pls.’ Mot. to Excl. Portions of Rep. & Opinions of Def. Expert David P. Kaplan (“Kaplan Mot.”), Docket Entry No. 8207; Notice of Target Pls.’ Mot. to Excl. the Rep. & Opinions of Def. Expert Andres V. Lerner (“Lerner Mot.”), Docket Entry No. 8121; Notice of Target Pls.’ Mot. to Excl. Portions of Rep. & Opinions of Def. Expert Kevin M. Murphy (“Target Murphy Mot.”), Docket Entry No. 8129; Notice of The Home Depot & 7-Eleven Pls.’ Mot. to Excl. Portions of Rep. & Opinions of Def. Expert Kevin M. Murphy (“Home Depot Murphy Mot.”), Docket Entry No. 8181; Notice of 7-Eleven Pls.’ & The Home Depot’s Mot. to Excl. Portions of Rep. & Opinions of Def. Experts Marc Cleven & Stuart J. Fiske (“Cleven & Fiske Mot.”), Docket Entry No. 8200.)

supporting the motions to exclude Defendants' experts.<sup>4</sup> Because of the volume of motions, the Court decides the motions in six separate opinions based primarily on the parties who filed the motion.

In this Memorandum and Order, the Court decides (1) the motions to exclude expert testimony filed by the 7-Eleven Plaintiffs and The Home Depot, which seek to exclude (a) opinions from Professor Kevin M. Murphy and (b) opinions from Mr. Marc Cleven and Dr. Stuart J. Fiske, and (2) Elgin's motion to join in memoranda to exclude the reports and opinions of Professor Hubbard, Professor Kahn, and Dr. Teece, and portions of the reports and opinions of Mr. Cleven, Dr. Fiske, Mr. Harvey, Mr. Kaplan, and Professor Murphy.

For the reasons set forth below, the Court grants in part and denies in part the motions to exclude and grants Elgin's motion to join in the memoranda.<sup>5</sup>

## **I. Background**

For the relevant factual background, the Court refers the reader to its Memorandum and Order addressing the motions to exclude expert testimony filed by all Defendants to wholly or partially exclude the opinions of Dr. Reto Kohler, Professor Robert G. Harris, and Professor Joseph E. Stiglitz, and the Section 1 opinions of Professor Jerry Hausman. (Mem. & Order, Docket Entry No. 8714.)

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<sup>4</sup> (Notice of Mot. for Partial Summ. J. & Joinder in the Mem. of Law in Support of 7-Eleven Pls.' and The Home Depot's Mot. for Partial Summ. J. & Supporting Evid. Regarding Same ("Elgin Joinder Mot."), Docket Entry No. 8178); (Notice of Mot. to Excl. Reports & Opinions of Def. Experts & Joinder in the Mem. of Law & Supporting Evid. Regarding Same ("Elgin Excl. Joinder Mot."), Docket Entry No. 8179.)

<sup>5</sup> The Court separately decides (1) the first four motions to exclude filed by all Defendants, (2) the second four motions to exclude filed by all Defendants, (3) the two motions to exclude filed by Visa and the Bank Defendants, (4) the two motions to exclude filed by the Target Plaintiffs, and (5) the five motions to exclude filed by the Direct Action Plaintiffs.

## II. Discussion

### a. Standard of review

Rule 702 provides that “[a] witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if: (a) the expert’s scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue; (b) the testimony is based on sufficient facts or data; (c) the testimony is the product of reliable principles and methods; and (d) the expert has reliably applied the principles and methods to the facts of the case.” **Fed. R. Evid. 702.**<sup>6</sup> “While the proponent of expert testimony has the burden of establishing by a preponderance of the evidence that the admissibility requirements of Rule 702 are satisfied, . . . the district court is the ultimate gatekeeper.” *United States v. Jones*, **965 F.3d 149, 161** (2d Cir.

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<sup>6</sup> In June of 2022, the Judicial Conference Committee on Rules of Practice and Procedure voted to approve two amendments to Rule 702. See Colleen Cochran, *The Process, Progression, and Potential Ramifications of the Rule 702 Amendment*, BUSINESS LAW TODAY (Sept. 5, 2022), <https://businesslawtoday.org/2022/09/rule-702-amendment-process-progression-potential-ramifications/>. One of the two proposed amendments changes the text of the rule to read: “A witness who is qualified as an expert by knowledge, skill, experience, training or education may testify in the form of an opinion or otherwise if *the proponent demonstrates to the court that it is more likely than not that*. . . .” Committee on Rules of Practice and Procedure, Agenda Book, Tab 7A, at 891 (June 7, 2022), [https://www.uscourts.gov/sites/default/files/2022-06\\_standing\\_committee\\_agenda\\_book\\_final.pdf](https://www.uscourts.gov/sites/default/files/2022-06_standing_committee_agenda_book_final.pdf). The second proposed amendment changes part (d) from “the expert has reliably applied the principles and methods to the facts of the case” to “the expert’s opinion reflects a reliable application of the principles and methods to the facts of the case.” *Id.* at 891–92.

If approved by the Judicial Conference and the United States Supreme Court, and not rejected, modified, or deferred by Congress, the amendments will take effect in December of 2023. Cochran, *supra*. Because the amendments are not in force at the time this decision is published, the Court does not apply the amended version of Rule 702. However, in deciding these motions, the Court is mindful of the proposed amendments’ purpose of “emphasiz[ing] that the court must focus on the expert’s opinion, and must find that the opinion actually proceeds from a reliable application of the methodology” and “explicitly weaving the Rule 104(a) standard into the text of Rule 702.” Committee on Rules of Practice and Procedure at 871.

2020) (alteration in original) (quoting *United States v. Williams*, 506 F.3d 151, 160 (2d Cir. 2007)); see also *United States v. Farhane*, 634 F.3d 127, 158 (2d Cir. 2011) (“The law assigns district courts a ‘gatekeeping’ role in ensuring that expert testimony satisfies the requirements of Rule 702.” (citation omitted)), *cert. denied*, 565 U.S. 1088 (2011).

Before permitting a person to testify as an expert under Rule 702, the court must make the following findings: (1) the witness is qualified to be an expert; (2) the opinion is based upon reliable data and methodology; and (3) the expert’s testimony on a particular issue will “assist the trier of fact.” *Nimely v. City of New York*, 414 F.3d 381, 396–97 (2d Cir. 2005); see also *United States v. Napout*, 963 F.3d 163, 187–88 (2d Cir. 2020) (explaining that the court is tasked with “ensuring that an expert’s testimony both rests on a reliable foundation and is relevant to the task at hand” (quoting *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 597 (1993))); *United States v. Cruz*, 363 F.3d 187, 192 (2d Cir. 2004) (same). In *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, the Supreme Court set forth a list of factors, in addition to the criteria set forth in Rule 702, that bear on the determination of reliability: “(1) whether a theory or technique has been or can be tested; (2) ‘whether the theory or technique has been subjected to peer review and publication;’ (3) the technique’s ‘known or potential rate of error’ and ‘the existence and maintenance of standards controlling the technique’s operation;’ and (4) whether a particular technique or theory has gained general acceptance in the relevant scientific community.” *Williams*, 506 F.3d at 160 (quoting *Daubert*, 509 U.S. at 593–94); see also *United States v. Morgan*, 675 F. App’x 53, 55 (2d Cir. 2017) (same); *Zaremba v. Gen. Motors Corp.*, 360 F.3d 355, 358 (2d Cir. 2004) (same). The *Daubert* inquiry for reliability is a “flexible one” and does not “constitute a definitive checklist or test,” and thus, the *Daubert* factors “neither necessarily



nor exclusively appl[y] to all experts or in every case.” *Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137, 141, 150 (1999) (citation omitted).

The district court is afforded “the same broad latitude when it decides *how* to determine reliability as it enjoys [with] respect to its ultimate reliability determination.” *Id.* at 142. Expert testimony should be excluded if it is “speculative or conjectural.” *Jones*, 965 F.3d at 162 (quoting *Boucher v. U.S. Suzuki Motor Corp.*, 73 F.3d 18, 21 (2d Cir. 1996)); *Major League Baseball Props., Inc. v. Salvino, Inc.*, 542 F.3d 290, 311 (2d Cir. 2008) (same). When an expert’s opinion is based on data or methodologies “that are simply inadequate to support the conclusions reached, *Daubert* and Rule 702 mandate the exclusion of that unreliable opinion testimony.” *Ruggiero v. Warner-Lambert Co.*, 424 F.3d 249, 253 (2d Cir. 2005) (citation omitted); *see also Nimely*, 414 F.3d at 396 (“[N]othing in either *Daubert* or the Federal Rules of Evidence requires a district court to admit opinion evidence which is connected to existing data only by the *ipse dixit* of the expert. A court may conclude that there is simply too great an analytical gap between the data and the opinion proffered.” (alteration in original) (quoting *Gen. Elec. Co. v. Joiner*, 522 U.S. 136, 146 (1997))). Nevertheless, “in accordance with the liberal admissibility standards of the Federal Rules of Evidence, only serious flaws in reasoning or methodology will warrant exclusion.” *In re Fosamax Prods. Liab. Litig.*, 645 F. Supp. 2d 164, 173 (S.D.N.Y. 2009) (citing *Amorgianos v. Nat’l R.R. Passenger Corp.*, 303 F.3d 256, 267 (2d Cir. 2002)); *see also Adams v. Liberty Mar. Corp.*, 407 F. Supp. 3d 196, 202 (E.D.N.Y. 2019) (same).

**b. Motion to exclude portions of report and opinions of Kevin M. Murphy**

The Home Depot and the 7-Eleven Plaintiffs move to exclude portions of the report and opinions of Kevin M. Murphy (Home Depot Murphy Mot.), an expert witness for Defendants. (Expert Report of Kevin M. Murphy (“Murphy Rep.”) ¶ 2 n.1, annexed to Wilson Decl. as Ex. 1,

Docket Entry No. 8501-1; *see also* Expert Report of Kevin M. Murphy, annexed to Olson Decl. as Ex. 1, Docket Entry No. 8488-1.)<sup>7</sup>

The Court refers the reader to its Memorandum and Order addressing the motions to exclude expert testimony filed by the Target Plaintiffs for a brief overview of Professor Murphy’s background and expert report.

#### **i. Professor Murphy’s “gains from trade” model**

The Home Depot and the 7-Eleven Plaintiffs argue that Professor Murphy builds his “gains from trade” model on “assumptions contrary to basic economic principles.” (Mem. of Law in Supp. of The Home Depot & 7-Eleven Plaintiffs’ Mot. to Excl. Portions of Rep. & Opinions of Def. Expert Kevin M. Murphy (“Home Depot Murphy Excl. Mem.”) 8, Docket Entry No. 8181.) They claim that Professor Murphy “acknowledged at his deposition” that “by the logic of his model, when merchant marginal costs increase, the retail prices charged by the merchant also increase.” (*Id.* at 9.) However, his model reflects an “untenable assumption that merchants’ higher marginal costs from more expensive payment cards do not yield higher consumer prices which reduce sales.” (*Id.* at 10) The Home Depot and the 7-Eleven Plaintiffs claim that at his deposition, Professor Murphy was unable to “articulate a principled basis” for his assumption that the merchant in his model would not change its prices as its marginal costs changed. (*Id.* at 11–12.) They argue that this assumption is “contradicted by the very economic literature [Professor Murphy] cites in his report,” claiming that two of the articles Professor Murphy cites in his report conclude that interchange fee levels increase retail prices. (*Id.* at 12–13.) They also note that Professor Murphy stated in his report that he “imposed this assumption

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<sup>7</sup> The Court refers to Professor Murphy as “Kevin M. Murphy” as stated in his report, (Murphy Rep. ¶ 1), but notes that the exhibit is titled “Report of Professor Kevin R. Murphy,” (*see* Wilson Decl., Docket Entry No. 8345).



‘for simplicity,’ not because he thought he had proved that merchants would really hold prices constant in the face of higher acceptance fees.” (Reply Mem. of Law in Further Supp. of The Home Depot, 7-Eleven Plaintiffs & Elgin Ave. Recovery, LLC’s Mot. to Excl. Portions of Rep. & Opinions of Def. Expert Kevin M. Murphy (“Home Depot Murphy Excl. Reply”) 3, Docket Entry No. 8183.) The Home Depot and the 7-Eleven Plaintiffs claim that Professor Murphy’s regression analyses do not provide empirical support for this assumption. (*Id.* at 3–4.) They also argue that Professor Murphy’s analysis of merchant surcharging does not address retail price increases because surcharging payment card use is not the same thing as increasing retail prices. (*Id.* at 4 n.9.) The Target Plaintiffs similarly claim that Professor Murphy’s model improperly “assumes that the price the merchant charges to consumers is fixed and, therefore, the merchant will not raise or lower the price if the network raises or lowers the interchange fee that it charges the merchant.” (Mem. of Law in Supp. of Target Pls.’ Mot. to Excl. Portions of Rep. & Opinions of Def. Expert Kevin M. Murphy 3, Docket Entry No. 8130.)

In response, Defendants argue that although Professor Murphy’s “model of the basic network-merchants-cardholders interaction and resulting gains from trade holds merchants’ prices constant,” Professor Murphy’s report goes on to “explain[] that increasing the portion of the transaction fees that merchants bear could create incentives for merchants to change their prices” and “addressed each of these potential incentives in his report.” (Defs.’ Mem. of Law in Opp’n to Mots. to Exclude Portions of Rep. & Opinions of Def. Expert Prof. Kevin M. Murphy (“Murphy Excl. Opp’n”) 13, Docket Entry No. 8201.) Further, Professor Murphy provided empirical evidence addressing the relationship between card acceptance and retail prices in his report. (*Id.*) Professor Murphy also analyzed surcharging and showed that, “if some merchants were to increase retail prices to cardholders by surcharging payment card transactions, they

would reduce the joint gains from trade and would harm the value of the network for all network participants.” (*Id.* at 14.)

The Home Depot and the 7-Eleven Plaintiffs identify two places where Professor Murphy holds prices constant despite a change in the merchant’s costs. (*See* Home Depot Murphy Excl. Mem. 9–10.) First, in Exhibit 6A, Professor Murphy introduces a payment card to his model and assumes that “all of the net direct transactional benefit . . . is provided to the merchant.” (Murphy Rep. ¶ 138.) “Assuming for simplicity that the merchant continues to charge  $P_0$  per unit,” he finds that the joint gains to the cardholder and merchant are equal to the transactional benefit of the card. (*Id.*) The Home Depot and the 7-Eleven Plaintiffs argue that Professor Murphy improperly failed to “depict his merchant lowering its profit-maximizing price after its marginal cost decreases.” (Home Depot Murphy Excl. Mem. 9.) Second, in Exhibit 8, Professor Murphy assumes that the theoretical payment card is a rewards card and that the merchant discount is exactly equal to the amount consumers receive in rewards. (*See id.*; Murphy Rep. ¶ 145.) He concludes that although the merchant’s per unit profits decline, “that reduction in profit on each unit is largely offset by the additional profits earned by selling more units at the discounted price.” (Murphy Rep. ¶ 147.) The Home Depot and the 7-Eleven Plaintiffs argue that Professor Murphy’s claim that consumers will buy more goods “depends on his untenable assumption that merchants’ higher marginal costs from more expensive payment cards do not yield higher consumer prices which reduce sales.” (Home Depot Murphy Excl. Mem. 10.)

At his deposition, Professor Murphy testified that he did not “know of any economic theory that a company of any type would set prices without considering” costs. (Videotaped Dep. of Kevin M. Murphy (“Murphy Dep.”) 301:8–19, annexed to Shinder Decl. as PX57, Docket Entry No. 8513-6.) When asked about “the formula for pricing differentiated products

under competition,” he stated that “the most common kind of competition that people model in differentiated product markets is some kind of Nash-Bertrand competition,” and in that formula, there are “two things,” namely marginal cost and elasticity, that affect price. (*Id.* at 486:21–487:22.) He acknowledged that in that formula, “as marginal cost increases, price increases[,]” (*id.* at 487:18–20), but he said that “you can’t use that formula” “[i]f you want to ask how price changes with marginal cost,” because “elasticity is not necessarily constant along the demand curve,” (*id.* at 488:1–12). Professor Murphy also testified that in a two-sided market with perfect competition, if marginal cost increases on one side of the market, “in general, you would see an increase in price.” (*Id.* at 566:24–567:14.) He added that there would be “all kind of feedback effects that could change that,” but that “in general . . . you would still expect to see prices to rise as a result of that.” (*Id.* at 567:15–19.) Similarly, he testified that in a two-sided market with imperfect competition, “you would expect” a price increase, although “I’m sure you could construct counterexamples.” (*Id.* at 568:9–24.) However, Professor Murphy also testified that in the “standard economic model,” marginal cost does not necessarily result in a higher price because “the change in price will depend on the change in the elasticity as well as the change in marginal cost.” (*Id.* at 364:18–22.)

Professor Murphy testified that in Exhibit 6A, he did not recalculate the price because “[w]e don’t have enough in the model yet.” (*Id.* at 333:18–22.) He said that the model was “measuring the benefit to the merchant from the change in the system,” and that although the merchant’s marginal costs have decreased at that point in the model, “we don’t know by how much.” (*Id.* at 334:24–335:17.) Opposing counsel asked about the “accepted mathematical formula” for calculating price and whether “marginal cost is one of [the] variables” in that formula. (*Id.* at 336:22–25.) Professor Murphy replied that “there is a formula,” but that only

some of the customers are cardholders, and that you cannot say “by how much” the profit-maximizing price and formula will decrease. (*Id.* at 337:1–338:9.) Asked directly whether, in his “gains from trade” model, he “allow[ed] the merchant to adjust the profit-maximizing price as marginal cost increases or decreases,” Professor Murphy said that “in order to address that question, you have to ask both how does the demand curve shift as well as how does the elasticity change, which is why you have to model that as well.” (*Id.* at 362:18–363:5.) He said that he did not do this modeling “in the exhibits” but that he discussed it “in the discussion” and that his report also had “a whole section discussing whether the price will go up or down.” (*Id.* at 363:9–12.) Professor Murphy testified that whether the price will go up or down is “an empirical question based on the change in the elasticity of demand and the level of the fees.” (*Id.* at 364:18–365:7.)

The Court does not exclude Professor Murphy’s “gains from trade” model. Professor Murphy’s IRI regression, which purports to show no positive correlation between credit card availability and retail prices, does seem to support his decision to hold prices constant in Exhibit 8, although it is weak evidence. (*See* Murphy Excl. Opp’n 13; Murphy Rep. ¶¶ 257–72.) In Exhibit 8, Professor Murphy shows what happens when the merchant discount is increased and the resulting revenues are used “to reduce cardholder fees or to fund other cardholder benefits, such as rewards.” (Murphy Rep. ¶¶ 144–145.) Thus, the question is not whether prices will remain constant when credit card availability increases, but whether prices will remain constant when the *merchant discount specifically* increases. As discussed in the Court’s Memorandum and Order deciding the motions to exclude filed by the Target Plaintiffs, Professor Murphy’s IRI regression does not directly address this question, although evidence that greater credit card availability does not increase retail prices is still evidence that payment cards do not necessarily

raise prices despite raising merchant marginal costs.<sup>8</sup> Professor Murphy’s report also contains an explanation of the mechanism by which prices would stay the same even as credit card availability rises — payment cards increasing elasticity of demand, which in turn reduces prices, (*see* Murphy Rep. ¶ 258) — which is consistent with his deposition testimony about the factors that determine price. (*See* Murphy Dep. 364:18-365:7 (stating that whether price will go up or down is “an empirical question based on the change in the elasticity of demand and the level of the fees”).) Notably, it is not clear why cards that offer higher rewards would increase demand except marginally through some of the possibilities Professor Murphy indicates, such as “greater ability to respond to unexpected opportunities.” (Murphy Rep. ¶ 263.)

Whether Professor Murphy was justified in assuming in Exhibit 6A that merchants would not *decrease* prices when their marginal cost *decreased* presents a closer question. (*See* Murphy Rep. ¶ 138.) The IRI regression indicates that credit card availability does not increase retail prices, but that does not seem to imply that merchants would not lower prices in a situation in which the full transactional benefit of a payment card was transferred directly to the merchant. (*See id.* ¶ 138.) Further, to the extent that Professor Murphy’s explanation based on elasticity of demand is relevant, it appears that the payment card would *increase* elasticity of demand, thereby *lowering* prices; there does not appear to be any reason that elasticity of demand would prevent prices from decreasing. Given that Professor Murphy testified that “the change in price will depend on the change in the elasticity as well as the change in marginal cost,” it is unclear why the price would not decrease in a situation in which marginal cost decreased and Professor

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<sup>8</sup> Plaintiffs may rebut this evidence with, for example, the literature cited in Professor Murphy’s report that they claim shows “that it is ‘widely accepted’ in the economic literature that interchange fee levels influence retail prices.” (Home Depot Murphy Excl. Mem. 12–13.)

Murphy has provided no reason that elasticity of demand would have a countervailing effect. (*Id.* at 364:18–365:7.)

Perhaps the most plausible justification for Professor Murphy’s decision to hold prices constant is that although marginal costs may have decreased at that point in the model, “we don’t know by how much,” which is consistent with the statement in his report that he kept price constant “for simplicity.” (*Id.* at 334:24–335:17; Murphy Rep. ¶ 138.) Asked at his deposition about his decision to hold prices constant in Exhibit 6A, Professor Murphy replied that “[w]e don’t have enough in the model yet to recalculate” the price and that “you have to be careful” in applying the formula for calculating price because only some of the merchant’s customers are cardholders. (*Id.* at 333:8–25, 336:16–337:12.) The Court concludes that for purposes of his model, Professor Murphy may assume that the decrease in marginal costs is not significant enough to meaningfully reduce prices, and that Plaintiffs may challenge this assumption on cross-examination.

Accordingly, the Court does not exclude the “gains from trade” model.

## **ii. Professor Murphy’s defenses of the HAC rules**

### **1. Fragmentation**

The Home Depot and the 7-Eleven Plaintiffs critique Professor Murphy’s claim that eliminating the HAC rules would “fragment the Visa and Mastercard networks.” (Home Depot Murphy Excl. Mem. 14.) They argue that despite using terminology about “fragmentation” over fifty times in his report, Professor Murphy never defines the term “or cites any literature that does.” (*Id.*) The Home Depot and the 7-Eleven Plaintiffs claim that at his deposition, Professor Murphy acknowledged that “he was not aware of *any objective standard* used in economics for assessing whether a network is ‘fragmented.’” (*Id.* at 14–15.) They also note that while



Professor Murphy also opined that nonacceptance of some issuers' Visa or Mastercard cards would cause a "significant amount" of fragmentation, he could not describe an economic methodology for determining how much fragmentation is significant, and in fact testified that "there is no 'bright line' between different levels of 'fragmentation.'" (*Id.* at 15.) The Home Depot and the 7-Eleven Plaintiffs cite to Professor Murphy's testimony from a trial against Microsoft in 2002, when Professor Murphy "admitted that he had 'tried to write down a mathematical model of what fragmented would be, and couldn't get anything that was consistent,' so he 'discarded' it." (*Id.* at 15–16.) They argue that the materials about fragmentation cited in Defendants' brief are irrelevant because Professor Murphy "did not rely" on "this *post hoc* collection of materials." (Home Depot Murphy Excl. Reply 5 (quoting *Yates v. Ford Motor Co.*, 113 F. Supp. 3d 841, 857 n.10 (E.D.N.C. 2015)).) Further, they claim that the articles fail to support Professor Murphy's opinion that "a payment card network must require 'universal acceptance on common terms' in order to avoid 'fragmentation.'" (*Id.*)

In response, Defendants argue that "the 'fragmentation' of a payment card network . . . is not only consistent with established economic theory, but also supported by a wealth of scholarship regarding network effects in transaction and other platforms that describe the feedback effects of reduced participation in two-sided markets." (Murphy Excl. Opp'n 21.) They contend that "[f]ragmentation" "describes precisely what occurs to the network when it abandons universal acceptance on common terms." (*Id.* at 22.) Defendants also claim that although Professor Murphy did "testif[y]" that he 'discarded' a mathematical measure of fragmentation that he had attempted to develop for an unrelated litigation, he never abandoned the concept of fragmentation." (*Id.* at 22–23.) They cite to Professor Murphy's testimony that the significance of fragmentation is a matter of "degree[.]" and argue that "expert economic

opinions are not excludable for referencing assessments that are . . . a matter of degree.” (*Id.* at 23.)

The Court does not exclude Professor Murphy’s fragmentation opinions. Professor Murphy uses “fragmentation” to describe what would happen if merchants declined issuers’ cards: the network would “fragment,” or break, from one whose cards are accepted everywhere to one whose cards are used only at some merchants. (Murphy Rep. ¶¶ 38, 488–489.) Notably, Professor Murphy’s claim that the networks would suffer fragmentation in the but-for world does not itself disprove Plaintiffs’ claims. Rather, “fragmentation” is relevant because Professor Murphy claims the process he describes — in which fewer merchants accept the network Defendants’ cards — would reduce total surplus and consumer surplus in the but-for world. (*See id.* at Section VIII.C.) Professor Murphy does not simply assume that fragmentation would be bad, but rather uses the term to describe his predictions for the but-for world, explaining both why he believes the networks would fragment and why this fragmentation would be harmful. Professor Murphy’s failure to provide a technical definition of “fragmentation,” (Home Depot Murphy Excl. Mem. 14), provide an “objective standard” used for assessing fragmentation, (*id.* at 14–15), or provide a “mathematical model” of fragmentation, (*id.* at 15–16), is therefore no more problematic than his failure to provide these things for any other descriptive term he uses. Further, because he explains why he believes the networks would be fragmented in the but-for world and why this would harm consumers, his opinion is based on more than “subjective belief or unsupported speculation” or “the *ipse dixit* of the expert.” (*See id.* at 16 (first quoting *Joiner*, 522 U.S. at 146; and then quoting *Atl. Specialty Ins. v. AE Outfitters Retail Co.*, 970 F. Supp. 2d 278, 291 (S.D.N.Y. 2013)).)

Nor does the Court exclude Professor Murphy's fragmentation analysis as "a subjective analysis without any methodological constraints." *Bricklayers & Towel Trades Int'l Pension Fund v. Credit Suisse Secs. LLC*, 752 F.3d 82, 95 (1st Cir. 2014). In *Bricklayers*, the case cited by The Home Depot and the 7-Eleven Plaintiffs, (Home Depot Murphy Excl. Reply 6), the district court excluded the plaintiffs' experts' opinions as unreliable. *Id.* at 84. On appeal, the First Circuit reviewed the expert's "event study," which the defendants alleged included many flaws including failure to control for confounding factors. *Id.* at 87–90. In addressing this alleged failure, the First Circuit "agree[d] with the district court" that the expert "did not establish any reliable means of addressing" confounding factors, but rather "seemingly made a judgment call as to confounding information without any methodological underpinning." *Id.* at 95. It noted that while "even a statistical event study involves subjective elements," "a subjective analysis without any methodological constraints does not satisfy the requirements of *Daubert*." *Id.*

Professor Murphy develops his fragmentation opinions by critiquing Plaintiffs' experts' but-for worlds for failing to address the possibility and consequences of fragmentation. (*See* Murphy Rep. ¶ 291.) He supports his opinions using the historical record and American Express as examples. (*See id.* at ¶¶ 333, 489.) Although this analysis does not take the form of a specific study or calculation, it is bound by Plaintiffs' experts' opinions, the facts of the case, and the sources Professor Murphy cites for support. The Court does not consider it to be "a subjective analysis without any methodological constraints" any more than, for example, Professor Harris's discussion of Visa and Mastercard as cartel managers, which is similarly bound by the facts of the case and sources about cartels. (Expert Rep. of Dr. Robert G. Harris ¶¶ 265–274, annexed to Carney Decl. as Ex. DDX3, Docket Entry No. 8544-1.) This is distinguishable from the expert

in *Bricklayers*, who applied a “subjective analysis without any methodological constraints” to a task — controlling for confounding factors — that requires a methodology specifically suited for the task. 752 F.3d at 95.

In addition, Professor Murphy essentially acts as a rebuttal expert in offering his fragmentation opinions, “explain[ing], repel[ling], counteract[ing], [and] disprov[ing]” the Plaintiffs’ experts’ but-for opinions. *Scott v. Chipotle Mexican Grill*, 315 F.R.D. 33, 44 (S.D.N.Y. 2015) (quoting *Sci. Components Corp. v. Sirenza Microdevices, Inc.*, No. 03-CV-1851, 2008 WL 4911440, at \*2 (E.D.N.Y. Nov. 13, 2008)). The Court does not exclude Professor Murphy for structuring this analysis in the same way as the other rebuttal experts in this action: as a direct response and critique to the opposing parties’ experts’ opinions. (*See* Murphy Rep. §§ VIII.B.3, VIII.C); *see also Capri Sun GmbH v. Am. Beverage Corp.*, --- F. Supp. 3d ---, ---, 2022 WL 976270, at \*26 (S.D.N.Y. Mar. 31, 2022) (“At bottom, a rebuttal expert need not proffer a methodology or model, but only critique the opposing expert’s.”).)

## 2. Network value

The Home Depot and the 7-Eleven Plaintiffs argue that Professor Murphy is unable to “ground [his] opinion” that the HAC rules are necessary to protect the value of the Visa and Mastercard networks “in established economic concepts,” nor does he “identify any objective methodology for testing his assertions.” (Home Depot Murphy Excl. Mem. 16.) They point to Professor Murphy’s testimony at his deposition that “the number one way” to test whether network value would decrease in the absence of the HAC rules “would be to test whether such behavior has affected the popularity of the network’s card in the marketplace.” (*Id.* at 17.) However, “Professor Murphy failed to do any such analysis.” (*Id.*) The Home Depot and the 7-Eleven Plaintiffs claim that “several natural experiments” would have allowed Professor Murphy

to test this hypothesis, pointing to Visa and Mastercard untying credit and debit acceptance after the *Visa Check* settlement and the provision in the Durbin Amendment allowing merchants to set a minimum purchase threshold. (*Id.* at ¶¶ 17–19.)

In response, Defendants argue that Professor Murphy “explained how network effects, and the value of the networks to all participants, are enhanced by the universal acceptance of payment cards on common, uniform terms.” (Murphy Excl. Opp’n 24.) They claim that the bifurcation of credit and debit acceptance after *Visa Check* is a poor experiment because it “bears no resemblance to the entire elimination of the challenged HAC rules,” and that although it is not possible to separate the effect of the Durbin Amendment’s minimum purchase authorization from its overall effect on interchange rates, “Professor Murphy did examine the overall effect of the Durbin Amendment on debit card usage.” (*Id.* at 25.) Further, they claim that Professor Murphy “was not required to test his opinion” using natural experiments “for that opinion to be reliable.” (*Id.* at 24.)

At his deposition, Professor Murphy was asked whether his opinion that “opportunistic behavior by merchants in the absence of an honor all cards rule would reduce the value of the network for all participants” can be “empirically tested with data.” (Murphy Dep. 147:11–15.) He replied that “one way to test it” is “by the communality of the honor all cards rule”: “The fact that . . . every network we’re aware of that has multiple issuers within that network has had an honor all cards rule” is “a pretty strong indication that it has procompetitive benefits.” (*Id.* at 147:16–23.) Opposing counsel asked if there were “any other ways” the opinion “could be empirically tested with data.” (*Id.* at 147:24–148:4.) Professor Murphy replied that “you probably could find examples where people have behaved in opportunistic ways” and that “in principle, you could do it.” (*Id.* at 148:5–10.) He said that he “would rely more on . . . the

universal use of the honor all cards rule as well as the underlying economics that tells me about the value that the honor all cards rule would create. I think that combination of the underlying economics and the empirical observation . . . is the kind of evidence that economists frequently use.” (*Id.* at 148:11–18.) Professor Murphy was then asked if there are “accepted ways of calculating the value of the network” for cardholders. (*Id.* at 149:2–15.) He replied that “probably the number-one way would be how successful you are at getting people to use your card,” reflected in metrics like “growth of the network, the fact that the network is very successful, the fact that people choose that method over other methods.” (*Id.* at 149:16–150:3.) Opposing counsel then asked how he would empirically test whether the value of the network had been reduced by opportunistic behavior if he had “all the data [he] needed.” (*Id.* at 150:4–11.) Professor Murphy said that “if you had data that said that merchants engaged in opportunistic behavior within the network . . . you would want to look at whether that reduced the value the cardholders get as measured by their propensity to hold and use the card, for example.” (*Id.* at 150:16–23.) He added that “the kind of choices that are made regarding networks and how they design their systems is also good economic evidence.” (*Id.* at 151:6–9.) Professor Murphy said that he did not have “the data” to do such analyses himself. (*Id.* at 151:21–152:2.)

The Court does not exclude Professor Murphy’s opinions about network value. First, The Home Depot and the 7-Eleven Plaintiffs are incorrect in claiming that Professor Murphy does not “ground this opinion in established economic concepts.” (Home Depot Murphy Excl. Mem. 16.) Professor Murphy’s discussion of network value is grounded in the basic economic concepts of externalities, the “tragedy of the commons,” and “free riding.” (*See, e.g.,* Murphy Rep. ¶¶ 32, 33, 276, 278); *see also* Shi-Ling Hsu, *What Is a Tragedy of the Commons?*



*Overfishing and the Campaign Spending Problem*, 69 Albany L. Rev. 75, 76–78 (2005) (describing the tragedy of the commons as compared to other “large-group externality problems”).

Second, the Court agrees with The Home Depot and the 7-Eleven Plaintiffs that Professor Murphy does not test his assertions regarding network value. (Home Depot Murphy Excl. Mem. 18.) However, this failure is not fatal to the opinions’ admissibility. The Home Depot and the 7-Eleven Plaintiffs cite to this Court’s ruling in *Valente v. Textron, Inc.*, 931 F. Supp. 2d 409, 415 (E.D.N.Y. 2013), for the proposition that courts should assess the reliability of a proffered expert opinion by evaluating whether it has been or can be tested. (*Id.* at 19.) However, “whether a theory or technique has been or can be tested” is one of four factors set forth by the *Daubert* court that “bear on the determination of reliability” but that do not “constitute a definitive checklist or test” and therefore “neither necessarily or exclusively appl[y] to all experts or in every case.” *Valente*, 931 F. Supp. 2d at 415 (first quoting *Williams*, 506 F.3d at 160; and then quoting *Kumho*, 526 U.S. at 150, 141) (alteration in original). In *In re Masella*, the District of Connecticut Bankruptcy Court noted that although scientific evidence “relies upon the scientific methods and should be objectively testable,” “[e]xperts in disciplines that require the use of professional judgment are less likely candidates for exclusion because challenges may be ultimately viewed as matters in which reasonable experts may differ in exercising their judgment as to the appropriate methodology to employ or the appropriate variable to plug into a calculation.” *In re Masella*, Bankr. No. 05-24302, 2007 WL 2302312, at \*3 (Bankr. D. Conn. Aug. 7, 2007) (quoting *In re Comm. Fin. Servs., Inc.*, 350 B.R. 520, 528–29 (Bankr. N.D. Okla. 2005)); see also *SLSJ, LLC v. Kleban*, 277 F. Supp. 3d 258, 274 (D. Conn. 2017) (noting that while “[s]ome types of expert testimony will be more objectively verifiable, and subject to the

expectations of falsifiability, peer review, and publication, than others,” other types of expert testimony “will not rely on anything like a scientific method, and so will have to be evaluated by reference to other standard principles attendant to the particular area of expertise”); *In re Air Cargo Shipping Servs. Antitrust Litig.*, No. 06-MD-1775, 2014 WL 7882100, at \*8 (E.D.N.Y. Oct. 15, 2014) (stating that “[d]eference to experts is particularly appropriate when expert testimony concerns ‘soft sciences’ like economics” and that creating statistical models “is not like a Pythagorean demonstration of a mathematical truth that can be revealed indisputably” (quoting *Falise v. Am. Tobacco Co.*, 258 F. Supp. 2d 63, 67 (E.D.N.Y. 2000))).

Further, even assuming the “can be or has been tested” factor applies here, courts have interpreted *Daubert* such that it “does not require that [an expert’s] hypothesis be tested by its proponent, only that it *can be* tested.” *Robinson v. Garlock Equip. Co.*, No. 05-CV-6553, 2009 WL 104197, at \*2 (W.D.N.Y. Jan. 14, 2009) (emphasis added) (going on to note that “*Daubert* does not require that a party who proffers expert testimony carry the burden of proving to the judge that the expert’s assessment of the situation is correct” (quoting *Ruiz-Troche v. Pepsi Cola of P.R. Bottling Co.*, 161 F.3d 77, 85 (1st Cir. 1998))); *see also LaBarge v. Joslyn Clark Controls, Inc.*, 242 F. App’x 780, 782 (2d Cir. 2007) (“In requiring that the expert actually test his theory, rather than that the theory be testable, the District Court misstated the test articulated in [*Daubert*].”).

The Court concludes that Professor Murphy’s “network value” opinions are sufficiently testable for admissibility. Professor Murphy points to the historical success of networks with HAC rules as empirical evidence supporting his network value opinions, and claims that they can also be tested by finding “examples where people have behaved in opportunistic ways.” (Murphy Dep. 147:11–148:10.) The Home Depot and the 7-Eleven Plaintiffs themselves argue

that the *Visa Check* settlement and the Durbin Amendment provide “natural experiments” that can be used to test Professor Murphy’s opinions, (Home Depot Murphy Excl. Mem. 17–19), although Defendants question the applicability of these experiments, (Murphy Excl. Opp’n 24–25). The Home Depot and the 7-Eleven Plaintiffs can also contest Professor Murphy’s arguments on the level of economic theory, arguing that the language of externalities and the “tragedy of the commons” does not apply to this situation. (*See, e.g.*, Hausman Reply Rep. ¶¶ 264–278.)

Accordingly, the Court does not exclude Professor Murphy’s “network value” opinions.

### **3. Public good**

The Home Depot and the 7-Eleven Plaintiffs argue that Professor Murphy “blatant[ly] misuse[s]” the concept of “public goods” by describing “the ‘universal acceptance’ of Visa and Mastercard transactions on ‘uniform terms’” as a public good. (Home Depot Murphy Excl. Mem. 19–20.) First, they claim that under *Amex*, Visa and Mastercard should be “understood as supplying only one product — transactions,” and that therefore “the ‘goods’ provided by Defendants are *payment card transactions*, not some vague notion of ‘the value created by universal acceptance.’” (Home Depot Murphy Excl. Reply 8.) Second, they claim that “public goods” are “goods that rational private companies would generally not provide because there is no effective way to charge for their use,” and that payment card transactions “are clearly *not* public goods.” (Home Report Murphy Mem. 19.) As an economic matter, they claim that public goods are “nonrival” and “nonexcludable,” where a rival good “is one in which the same unit of the good cannot be consumed by more than one person at the same time” and an excludable good “is one where suppliers of the good can prevent people who don’t pay for the good from consuming it.” (*Id.* at 20.) The Home Depot and the 7-Eleven Plaintiffs argue that Professor

Murphy acknowledged at his deposition that Visa and Mastercard transactions are both rival and excludable. (*Id.* at 20.)

Defendants argue that Professor Murphy “did not describe payment card transactions as a public good,” but rather used “public good” to describe “the ‘value of the payment card network to all participants’ that derives from universal acceptance of payment cards on common, uniform terms.” (Murphy Excl. Opp’n 26.) They claim that in Professor Murphy’s view, “the value created by universal acceptance on uniform terms” is nonrival because “[m]ultiple merchants and consumers can ‘consume’ this value without reducing its availability to others” and nonexcludable because “under current network rules, the networks cannot prevent market participants from consuming this value.” (*Id.*)

The Court does not exclude Professor Murphy’s “public good” opinions. It is true that the Supreme Court decision in *Ohio v. American Express Co.* (“*Amex*”) holds that “credit-card companies are best understood as supplying only one product — transactions — which is jointly consumed by a cardholder and a merchant.” 138 S.Ct. 2274, 2286 n.8 (2018). However, this statement was made was in the context of market definition. *Id.* Leaving aside how strictly this holding is to be construed for purposes of market definition, the Court does not read it to apply to non-market-definition contexts. Further, as Defendants argue, it is at least cognizable that universal acceptance on uniform terms is both nonrival and nonexcludable and therefore a public good. (Murphy Excl. Opp’n 26); *see also* J. Samuel Barkin & Yuliya Rashchupkina, *Public Goods, Common Pool Resources, and International Law*, 111 Am. J. Int’l L. 376, 378–79 (2017) (explaining that a public good is “characterized by non-rivalry . . . and non-excludability” (quoting Fabrizio Cafaggi & David D. Caron, *Global Public Goods Amidst a Plurality of Legal Orders: A Symposium*, 23 Eur. J. Int’l L. 643, 644 (2012))). Professor Murphy explained at his

deposition that universal acceptance is not a *global* public good, but that in his opinion it is a public good for credit card network participants. (Murphy Dep. 104:19-109:3.) Even assuming that universal acceptance is a highly unusual public good because “[t]he economic concept of public goods is associated with non-profit and governmental services,” there is no rule against experts identifying unusual examples of economic concepts where, as here, the example is at least plausibly supported by the definition of the concept. (Home Depot Murphy Excl. Reply 8.)

In particular, the Court is not concerned about Professor Murphy “mislead[ing] jurors into thinking that Defendants provide public goods” in the more conventional sense of, for example, clean air or a lighthouse. Henry H. Perritt, Jr., *Property and Innovation in the Global Information Infrastructure*, 1996 U. Chi. Legal F. 261, 267 & n.28 (1996) (identifying clean air and lighthouses as public goods and noting that “[m]ost public goods are either gifts of nature or provided by the government” (citing to Werner Sichel & Peter Eckstein, BASIC ECONOMIC CONCEPTS—MACROECONOMICS 259 (Rand McNally, 2d ed 1977))). A juror capable of understanding the highly technical testimony in this case is unlikely to believe that Defendants are providing the equivalent of clean air or a lighthouse simply because Professor Murphy uses the term “public good.”

### **iii. Professor Murphy’s IRI regression analysis**

The Home Depot and the 7-Eleven Plaintiffs argue that Professor Murphy’s IRI regression analysis “fails to meet Defendants’ burden under Rule 702 to show that this regression model produces reliable results.” (Home Depot Murphy Excl. Mem. 21.)

#### **1. Stores with minimal data**

The 7-Eleven Plaintiffs and The Home Depot point to the fact that Professor Murphy presents results for “all stores,” for “stores with 3+ shoppers only,” and for “stores with 5+

shoppers only.” (*Id.* at 22.) They claim that Professor Murphy has acknowledged that “results that do not exclude stores with minimal data are unreliable” and that in 2010, Professor Murphy corrected his initial IRI regression to include data “only from stores with three or more shoppers with reported prices.” (*Id.*) However, they claim he inexplicably did not do that with the 2019 results he presents here. (*Id.*) They argue that “for the same reasons Professor Murphy identified in 2010, his results for ‘all stores’ should be ignored.” (*Id.*)

Defendants do not respond to this critique. (*See* Murphy Excl. Opp’n.)

At his 2010 deposition, Professor Murphy testified that he presented “several results, depending on . . . if you use all the stores, including stores that have like only a single shopper, [or] if you limit it to the stores with more than three shoppers or more than five or more shoppers.” (Excerpts from the Dep. Transcript of Prof. Kevin Murphy dated April 10, 2010 (“2010 Murphy Dep.”) 332:21–333:2, annexed to Olson Decl. as Ex. 13, Docket Entry No. 8488-2.) He added that “[o]bviously in stores where you don’t have very many shoppers, you’re not getting a very precise estimate of what’s going on. So you might want to look at the stores where you have more shoppers.” (*Id.* at 333:4–8.) Professor Murphy was also asked whether it was after he “reran the original regressions on the corrected dataset” that he “began running regressions that required three or more shoppers or five or more shoppers.” (*Id.* at 490:14–18.) He testified that his team had “looked at some of that before” but that when they “added the other dataset” they “picked up more stores with small numbers of shoppers, so that became a bigger issue.” (*Id.* at 491:19–23.)

The Court does not exclude Professor Murphy’s “all stores” results. Contrary to The Home Depot and the 7-Eleven Plaintiffs’ claims, Professor Murphy’s 2010 deposition testimony indicates that he presented “several results” including those “us[ing] all the stores.” (*Id.* at



332:21–333:2.) Even if Professor Murphy only presented results for stores with three or more or five or more shoppers in his 2010 results, the Court is not persuaded that Professor Murphy’s “all stores” results should be excluded. The fact that “in stores where you don’t have very many shoppers, you’re not getting a very precise estimate of what’s going on,” (2010 Murphy Dep. 333:4–8), is insufficient to conclude that Professor Murphy “lacks ‘good grounds’ for his . . . conclusions.” *Amorgianos*, 303 F.3d at 267 (quoting *In re Paoli R.R. Yard PCB Litig.*, 35 F.3d 717, 746 (3d. Cir. 1994)). Because Professor Murphy includes results for stores with three or more and five or more shoppers, Defendants can argue on cross-examination that these results are the most significant and that the jury should disregard the “all stores” results.

## 2. Statistical significance

The Home Depot and the 7-Eleven Plaintiffs claim that Professor Murphy’s results for stores with three or more shoppers “are not statistically significant” when controlling for store banners. (Home Depot Murphy Excl. Mem. 23.) For stores with three or more shoppers, using credit accounts per household as the independent variable, “the regression of only *one* out of [*ten* products (frozen entrées) is statistically significant at the 5% level.” (*Id.*) The Home Depot and the 7-Eleven Plaintiffs claim that even the frozen entrée results are not statistically significant because “[g]iven the number of product categories that Professor Murphy tested,” there is a 40% chance that the allegedly statistically significant results “are simply a result of random noise in the data.” (*Id.*) They argue that the same is true for stores with five or more shoppers, where “only the results for toothpaste are identified as being statistically significant,” and the three-or-more and five-or-more shopper results when the independent variable is credit limit per household, for which “only the results for paper towels are labeled statistically significant.” (*Id.* at 24.) The Home Depot and the 7-Eleven Plaintiffs claim that because

Professor Murphy “has failed to demonstrate his IRI study generates *any* statistically significant results,” it should be excluded. (*Id.*)

Defendants argue that Professor Murphy “conducted the IRI regression analysis to test *[P]laintiffs’* contention that credit card usage inevitably causes higher retail prices,” and that the lack of statistically significant results is in fact “at the heart of Professor Murphy’s view that the evidence does not support *[P]laintiffs’* claim that increased credit card usage necessarily increases retail prices.” (Murphy Excl. Opp’n 36 (emphasis in original).)

The Court agrees with Defendants that Professor Murphy’s IRI regressions do not need to yield statistically significant results to be meaningful or to support his argument. Professor Murphy titles the relevant section of his report “Payment Card Usage and Interchange Need Not Increase Retail Prices” and presents his results by claiming that they “do[] not support the Plaintiffs’ hypothesis.” (Murphy Rep. ¶¶ 268, 270, Section V.C). In concluding his analysis, he states that “Plaintiffs’ experts[] claim that card usage increases retail prices. Yet they provide no evidence that this is the case,” and that his empirical evidence “shows the opposite . . . — increased credit card and credit availability among a store’s shoppers are not associated with higher prices.” (*Id.* ¶ 272.) This is consistent with Defendants’ claim that Professor Murphy uses his IRI regressions to show that card usage need not increase retail prices, not that it affirmatively decreases retail prices. The closest question is presented by Professor Murphy’s claim that the IRI analysis “supports [the] hypothesis” that “payment card usage would reduce the net retail prices paid by card users . . . and may also lower retail prices to all customers.” (Murphy Rep. ¶ 258.) Although the Court is not persuaded that statistically significant results in a limited number of retail categories “support[] [the] hypothesis” that payment card usage may

lower retail prices, it concludes that this claim does not characterize Professor Murphy's overall use of his IRI analysis and is best addressed on cross-examination.

The Home Depot and the 7-Eleven Plaintiffs also argue that the IRI regression cannot be used to rebut Plaintiffs' claim that credit card usage increases retail prices because "Plaintiffs did not make any such claim." (Home Depot Murphy Excl. Reply 9.) They acknowledge that Plaintiffs "have claimed that raising payment card fees will increase retail prices," but argue that "the IRI regression did not test that claim" and that "[t]he fact that the IRI regression did not find a statistically significant relationship between credit card availability and retail prices thus does nothing to disprove any relevant claim." (*Id.*)

The IRI regressions are relevant to dispute Plaintiffs' claim that raising payment card fees will increase retail prices. "Expert evidence is relevant if it tends to make any fact of consequence to the litigation more or less probable." *Kogut v. County of Nassau*, 894 F. Supp. 2d 230, 239 (E.D.N.Y. 2012). Evidence showing that greater card usage is not associated with higher retail prices makes it less likely that higher retail card fees are associated with higher retail prices because it indicates that there is not a direct relationship between the fees merchants pay and the fees they charge. The IRI regressions are therefore not excluded as irrelevant.

### **3. Aggregation**

The Home Depot and the 7-Eleven Plaintiffs argue that Professor Murphy's IRI regression fails to control for "the geographical region where a store is located." (Home Depot Murphy Excl. Mem. 24.) They claim that Professor Hausman conducted "[a] statistical test known as the Chow test" which showed that stores that serve below-median-income areas and those that serve above-median income areas "have different regression coefficients and therefore must be modelled separately." (*Id.*; Home Depot Murphy Excl. Reply 10.) The Home Depot

and the 7-Eleven Plaintiffs argue that it is insufficient that Professor Murphy included fixed effects indicating the area in which each store was located because he still “assume[d] all stores have the same causal relationship between credit card availability and retail prices.” (Home Depot Murphy Excl. Reply 9–10.) They claim that when geography is included, “the regressions are consistent with credit card availability resulting in *increasing* retail prices in less affluent areas . . . and are statistically insignificant from zero in more affluent areas.” (Home Depot Murphy Excl. Mem. at 24–25.)

Defendants respond that Professor Murphy *did* control for the geographic location of each store “by including fixed effects indicating in which of the seven metropolitan statistical areas the store was located.” (Murphy Excl. Opp’n 37.) They claim that “the results of Professor Hausman’s separate regressions are consistent with Professor Murphy’s results in more affluent areas” and that Professor Hausman’s “purported results for less affluent areas may be grist for cross-examination, but they do not warrant the exclusion of the IRI analysis.” (*Id.* at 37–38 n.121.)

The Court does not exclude Professor Murphy’s IRI regressions for failing to model below-median-income and above-median-income separately. “The design of a statistical model must necessarily follow the structure of the entity being studied in light of the questions sought to be answered.” *Chen-Oster v. Goldman, Sachs & Co.*, 114 F. Supp. 3d 110, 120 (S.D.N.Y. 2015). It is not obvious why the IRI regressions examining the relationship between payment card usage and retail prices would best be served by a model treating above-median-income and below-median-income areas separately. The Home Depot and the 7-Eleven Plaintiffs argue that “[geography] is obviously important because grocery store prices are likely impacted by the typical demographics found in the region around the store.” (Home Depot Murphy Excl. Mem.

24.) However, this is an argument that Professor Murphy's model should control for geographic location, which it already does. (*See* Murphy Excl. Opp'n 37). The Home Depot and the 7-Eleven Plaintiffs' only specific argument that the IRI regressions should model above-median-income and below-median-income areas separately is that "Professor Hausman demonstrated that Professor Murphy's inappropriate grouping of data from different geographic regions introduces serious error." (Home Depot Murphy Excl. Reply 10.) While it is true that Professor Hausman showed that Professor Murphy's aggregation of above-median-income and below-median-income areas failed the Chow test, "the case law does not support the contention that passing the Chow test is an absolute prerequisite for including different data sets in the same regression." *Chen-Oster*, 114 F. Supp. 3d at 122 (collecting cases). Nor does Professor Hausman provide a reason for modeling above-median-income and below-median-income areas separately except that "geography is a likely confounding factor." (Hausman Reply Rep. ¶ 244.) In the absence of a clear reason that above-median-income and below-median income areas must be modelled separately, the Court declines to exclude Professor Murphy's IRI regression. *See Hilaire v. DeWalt Indus. Tool Co.*, 54 F. Supp. 3d 223, 235 (E.D.N.Y. 2014) (explaining that the "rejection of expert testimony is 'the exception rather than the rule'" (quoting Fed. R. Evid. 702 Advisory Committee Note)). Rather, Plaintiffs may argue at trial that Professor Murphy's approach was inapposite to the question studied and present Professor Hausman's alternative models.<sup>9</sup>

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<sup>9</sup> The Home Depot and the 7-Eleven Plaintiffs also briefly claim that "Professor Hausman explained in his reply report why it is necessary to control for store banners, further rendering unreliable Professor Murphy's Exhibits 27A and 28A, which do not control for that variable." (Home Depot Murphy Excl. Mem. 23 n.60.) This concern goes to weight rather than admissibility, as discussed in the Court's order addressing the Target Plaintiffs' motion to exclude Professor Murphy's opinion. Professor Hausman claims that "[a] statistical test rejects

#### iv. Conclusion

The Court denies Home Depot and the 7-Eleven Plaintiffs' motion to exclude portions of Professor Murphy's report and opinions.

##### c. Motion to exclude portions of report and opinions of Marc Cleven and Stuart J. Fiske

The 7-Eleven Plaintiffs and the Home Depot move to exclude portions of the report and opinions of Marc Cleven and Stuart J. Fiske. (Cleven & Fiske Mot.) Mr. Cleven is an expert witness for Visa and the Bank Defendants, (Expert Rep. of Marc Cleven ("Cleven Rep.") ¶ 16 n.1, annexed to Glist Decl. as Ex. 1, Docket Entry No. 8486-1), and Dr. Fiske is an expert witness for Mastercard and the Bank Defendants, (Expert Rep. of Dr. Stuart J. Fiske ("Fiske Rep.") ¶ 9 n.2, annexed to Glist Decl. as Ex. 2, Docket Entry No. 8486-2).

##### i. Mr. Cleven's background and expert report

Mr. Cleven is a corporate consultant in the payments industry. (Cleven Rep. ¶ 1.) He has worked in the payments industry for over thirty-five years. (*Id.* ¶ 3.) In 1997 he joined Visa International and continued working with Visa until 2017. (*Id.* ¶¶ 9–10; Marc J. Cleven Resume ("Cleven Resume"), annexed to Cleven Rep. as Ex. A.) His roles at Visa have included senior business leader of Global Product Acceptance and senior business leader of US EMV Migration. (Cleven Resume.) Mr. Cleven has "been heavily involved in efforts related to the development of EMV technology," including being active on various working committees of EMVCo., serving as a member of the Global ATM Security Alliance and the Payment Card Industry (PCI) Terminal Security Advisory Task Force, and being active in the EMV Migration Forum (now

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the hypothesis that the banner controls should be omitted," but as described above, the Chow test is not determinative. (Hausman Reply Rep. ¶ 243.) Professor Hausman also claims that "[a]cademic studies also recognize that prices are often uniform across a banner," but as discussed in relation to the Target Plaintiffs, prices within a chain are not so strongly correlated that analysis on the store rather than the chain level precludes admissibility. (*Id.*)



U.S. Payments Forum). (*Id.* ¶¶ 11–12.) Mr. Cleven has been recognized by the U.S. Payments Forum for Outstanding Contributions. (*Id.* ¶ 12.)

Mr. Cleven’s assignment in this case was to “provide opinions regarding the migration to and implementation of EMV-enabled chip cards in the United States,” including evaluating the opinions of the 7-Eleven Plaintiffs and The Home Depot’s witness Mansour Karimzadeh. (*Id.* at ¶ 16; Expert Rep. of Mansour Karimzadeh (“Karimzadeh Rep.”) ¶ 6, annexed to Carney Decl. as Ex. DDX8, Docket Entry No. 8544-2.) He summarizes his opinions as follows: first, “that the timing of Visa’s decision to support a U.S. migration to EMV was appropriate and based on a variety of factors, including technical and security factors,” (Cleven Rep. ¶ 22); second, that Visa’s “Chip and Choice” approach “was justified not only by technical and security factors . . . but also by a comprehensive assessment of how best to facilitate the U.S. migration to EMV,” (*id.* ¶ 23); third, that Mr. Karimzadeh’s opinions regarding the liability shift are internally contradictory and that delaying EMV implementation “would have exposed the U.S. payment system to increasing levels of counterfeit fraud loss,” (*id.* ¶ 24); and fourth, that “Visa’s dual-AID/single application solution for EMV implementation did not limit merchant routing choice and was superior to the available alternatives,” (*id.* ¶ 25).

Mr. Cleven’s report begins with a background section. (*Id.* ¶¶ 26–76). He discusses payment-card fraud, (*id.* ¶ 26–30), the impetus for EMV in Europe, (*id.* ¶¶ 30–32), and EMV authentication, authorization, and cardholder verification, (*id.* ¶¶ 33–45). He then discusses the business case for EMV in the United States. (*Id.* ¶¶ 46–51.) Mr. Cleven claims that unlike in Europe, “there had not been a strong business case for the United States to incur the expenses associated with migrating to EMV earlier than 2011.” (*Id.* ¶ 46.) He states that telecommunication costs in the United States were much lower than those in Europe, with the

result that “almost all U.S. transactions were authorized online in real-time,” with suspicious transactions detected by “fraud analytics.” (*Id.*) Mr. Cleven claims that as a result, “payment-card fraud remained at relatively low rates in the United States,” but had become worse by 2011 “given the increasing number of data breaches and rate of counterfeit fraud.” (*Id.* ¶¶ 47–48.) He also describes “[c]onsumer data breaches at large retailers” as a “tipping point for the U.S. payments industry,” claiming that publicity surrounding large breaches “changed the conversation around EMV” and “create[ed] a sense of urgency around EMV deployment.” (*Id.* ¶ 51.) In the remainder of the background section he discusses Visa’s “Chip and Choice” approach to cardholder verification methods (CVMs), (*id.* ¶¶ 52–53); EMV chip technology, (*id.* ¶¶ 54–58), the Durbin Amendment and the common AID framework,<sup>10</sup> (*id.* ¶¶ 59–64); and the need to balance friction, function, and security, (*id.* ¶¶ 65–67).

Mr. Cleven then begins the discussion portion of his report with his opinion that the timing of Visa’s U.S. EMV migration was reasonable. (*Id.* ¶¶ 68–105.) He notes that Visa was the first company to announce its U.S. EMV roadmap and claims that Mr. Karimzadeh “does not reconcile his opinion that Visa delayed to protect its commercial interests with the fact that Visa was the first mover.” (*Id.* ¶ 68.) Mr. Cleven claims that Mr. Karimzadeh “relies on the faulty premise that a payment network would decide to support EMV based only on technical and

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<sup>10</sup> “Under EMV specifications, something called an Application Identifier (‘AID’) is used to identify what applications exist on the card and to differentiate among them.” (Karimzadeh Rep. ¶ 31.) The AID “identifies the owner of the application, the technical application logic required for operation, and can also specify particular product offerings. AIDs play a key role in EMV processing by allowing the card and terminal to communicate with each other.” *Id.* Under Visa and Mastercard’s routing restrictions, “each debit card in the U.S. contain[s] . . . a Visa/Mastercard international ‘global’ AID and a Visa U.S. ‘common’ AID.” (*Id.* ¶¶ 134–135.) The common AID “provides the potential for access to any of the networks enabled on a given debit card, including routing to Visa and Mastercard,” while the global AID “limit[s] routing from the [g]lobal AID to only Visa or only Mastercard.” (*Id.* ¶¶ 136–137.)

security factors without regard to commercial factors relevant to all stakeholders in the Visa system” and that “[a]s of late 2013, many U.S. merchants and issuers still did not see a compelling business case for EMV.” (*Id.* ¶ 69.) He then begins his analysis of the timing of Visa’s EMV migration, discussing, first, the United States’ allegedly relatively low fraud rates. (*Id.* ¶¶ 70–75.) Mr. Cleven cites to a paper published by the Federal Reserve Bank of Atlanta that stated that United Kingdom (“U.K.”) fraud rates were much higher than those in the U.S., that issuers were becoming concerned by the increasing rate of fraud in Canada, and that the situation in the U.S. was similar to that in the Netherlands, which did not migrate to EMV until it saw an “actual increase in fraud.” (*Id.* ¶¶ 70–73.) He also cites to a statement by and testimony from “[s]enior managers at Visa” that “confirmed this industry viewpoint.” (*Id.* ¶ 73.) Mr. Cleven claims that after other countries migrated to EMV, fraud began to rise in the United States, but that issuers nonetheless “remained resistant to an EMV migration.” (*Id.* ¶¶ 74–75.) Second, Mr. Cleven claims that Visa [REDACTED]

[REDACTED] (*Id.* ¶ 76.) Visa was also “evaluating competing and complementary approaches” at the time. (*Id.* ¶ 77.) Third, Mr. Cleven claims that the timing of the U.S. migration did not disproportionately affect merchants or consumers. (*Id.* ¶¶ 78–79.) He argues that Mr. Karimzadeh “does not support his conclusion” that the delayed EMV adoption exposed the U.S. to higher fraud rates. (*Id.* ¶ 78.) Mr. Cleven claims that “to isolate the fraud-related effects of continuing to use magnetic-stripe cards instead of EMV-enabled cards, the evidence must distinguish between lost and stolen, counterfeit, and [card not present] fraud,” which “[t]he fraud data Mr. Karimzadeh cites fails to do.” (*Id.*) He also argues that even if Mr. Karimzadeh’s data was correct, it would

not establish that “fraud costs were borne ‘disproportionally’ by ‘consumers and merchants’” because “consumers and merchants generally did not bear those costs when they used and accepted payment cards properly.” (*Id.* ¶ 79.) Fourth, Mr. Clevan claims that Mr. Karimzadeh “mischaracterizes the scope of the international interoperability and acceptance issues and ignores Visa’s efforts to appropriately respond to them.” (*Id.* ¶ 80–81.) He argues that most of the issues “were due to foreign merchants’ *perceptions* that they would have been exposed to fraud if they accepted U.S. magnetic-stripe cards” and that the evidence cited by Mr. Karimzadeh “shows that Visa was taking these issues seriously and it was in the process of implementing short- and long-term solutions to address them.” (*Id.*)

Mr. Clevan discusses his second opinion, that Visa’s “Chip and Choice” approach was justified, (*id.* ¶¶ 82–105), before moving on to his third opinion, that delaying the liability shift would have led to more counterfeit fraud, (*id.* ¶¶ 106–12). He claims that “delaying the liability shift would have . . . slowed merchant migration to EMV, leading to more counterfeit fraud.” (*Id.* ¶ 106.) Mr. Clevan argues that Mr. Karimzadeh “looks at the liability-shift timelines in EMV migrations in other markets while ignoring how those timelines were related to the goals and experiences of those markets,” which unlike the U.S. were not online-only. (*Id.* ¶¶ 107–108.) He also responds to Mr. Karimzadeh’s claims that Visa contributed to and should have anticipated the certification bottleneck. (*Id.* ¶ 109.) Mr. Clevan claims that “the U.K.-version of acquirer certification took an average of only three to four weeks” and that Mr. Karimzadeh “fails to mention that acquirer processors had their own EMV certification tests, which were more onerous than the tests required by Visa and other branded networks.” (*Id.* ¶ 109.) Further, “many of the certification issues stemmed from acquirer-processor delays in developing EMV functionality,” which the EMV Migration Forum and Visa sought to address while the acquirer-

processors “made the delays worse.” (*Id.* ¶ 110–111.) Mr. Cleven also claims that the delays “related to debit specifications should not have been a factor in EMV migration for merchants that do not accept PIN-authenticated debit,” which includes “nearly two-thirds of all merchants that accept Visa.” (*Id.* ¶ 112.)

Finally, Mr. Cleven discusses his fourth opinion, that Visa’s dual-AID/single application solution did not limit merchant routing and was superior to the alternatives. (*Id.* ¶¶ 113–146.) As part of this discussion, he claims that Mr. Karimzadeh “does not reconcile his preference that the United States began its migration at the same time and in the same way as countries in Europe with his proposal for the unprecedented creation of an entire new technology for the United States,” namely a new common application. (*Id.* ¶¶ 142, 146.)

## **ii. Dr. Fiske’s background and expert report**

Dr. Fiske is Director and Chief Technology Officer of Hyperion Systems Limited. (Fiske Rep. ¶ 1.) He has a Ph.D. degree in physics. (*Id.*) He has worked with smart card technology for two decades, beginning in 1999 when he “specified an application for American Express to allow their Amex Blue chip cards to be used for secure internet shopping,” which led to “many years supporting American Express, Mastercard, Visa and Discover as regional networks.” (*Id.* ¶ 5.) Dr. Fiske has been involved in the market transition to EMV technology in the U.K., Europe, Canada, Hong Kong, Australia, and the United States. (*Id.* ¶ 6.)

Dr. Fiske opines in his report, in summary, that “it was reasonable for Mastercard to decide to migrate to EMV in the United States after other regions in the world”; that “each network’s choice to migrate to chip and ‘choice’ and Mastercard’s decision to incentivize but not mandate PIN was technically reasonable”; that Visa and Mastercard’s EMV implementation was

“a reasonable technical solution”; and that Visa and Mastercard’s liability shift timeline “was consistent with other markets and the maturity of the technology.” (*Id.* ¶¶ 11–14).

After the introductory material, Dr. Fiske begins with a section on background and terminology. (*Id.* ¶¶ 18–32). As part of this section, he claims that in comparison to Europe, “in the United States, various additional real-time security features were in place that, together with its always online environment, reduced the risk of payment fraud.” (*Id.* ¶ 32.) These various features “historically afforded U.S. issuers the ability to maintain exceptionally low rates of counterfeit and lost and stolen fraud.” (*Id.*)

In the next sections, Dr. Fiske discusses magnetic stripe technology, (*id.* ¶¶ 33–57), implementing EMV, (*id.* ¶¶ 58–60), and the commencement of the EMV migrations, (*id.* ¶¶ 61–91). As part of this last discussion, Dr. Fiske argues that “given fraud rates in the United States, the significance of the investment an EMV transition would require, and other unique factors in the United States market, it was reasonable from an ecosystem perspective for the United States to transition after other major markets had done so.” (*Id.* ¶ 61.) He claims that while there were “relatively high levels of card fraud in the U.K.,” the card fraud rate in the United States was 0.05% in 2004, compared to 0.14% in the United Kingdom. (*Id.* ¶ 68.) The United States EMV transition was not announced until 2011; Dr. Fiske interprets the evidence as showing that “fraud in the U.S. ha[d] not justified the cost” until that year. (*Id.* ¶ 81 (alteration in original).) Visa and Mastercard had considered the possibility of an EMV migration before then but had found “no general industry support for chip deployment.” (*Id.* ¶ 82.) Dr. Fiske cites to evidence from a Visa witness and a working paper by the Federal Reserve Bank of Atlanta about “the lack of business case in the U.S.” (*Id.* ¶ 83.) He opines that “[b]ased on [his] experience as a security technology expert, this was reasonable,” citing to the United States’ “comparatively low” fraud

rates and the “high” cost of transitioning the U.S. market. (*Id.* ¶ 84.) The business case for EMV migration then strengthened “[o]ver time” as fraud increased. (*Id.* ¶¶ 85–86.) Dr. Fiske claims that an additional impetus for migration “was cross-border interoperability issues.” (*Id.* ¶ 87.) Further, there was no U.S. “industry-wide forum or organization that was well-poised to focus the relevant stakeholders on the system-wide benefits of an EMV migration” until 2012, such that “the payment card networks themselves were each separately responsible for establishing timescale and introducing any incentives necessary to drive the migration.” (*Id.* ¶¶ 88–89.) Dr. Fiske claims that the difficulty of this task “was compounded by the size of the U.S. market.” (*Id.* ¶ 89.)

The last section of Dr. Fiske’s report discusses EMV rollouts, including the development of incentives, (*id.* ¶¶ 92–117), the use of PIN for cardholder verification, (*id.* ¶¶ 118–138), and the migration timeline and causes of delay in the United States, (*id.* ¶¶ 139–202).

### **iii. Mr. Cleven’s and Dr. Fiske’s opinions on EMV migration timing**

#### **1. “Business case” analysis**

The 7-Eleven Plaintiffs and The Home Depot argue that “neither Mr. Cleven nor Dr. Fiske have any experience or expertise to offer in assessing or analyzing ‘business cases’” and that “neither Mr. Cleven nor Dr. Fiske identifies any reliable or objective methodology underlying their ‘business case’ opinion whatsoever.” (Mem. of Law in Supp. of 7-Eleven Pls.’ & The Home Depot’s Mot. to Excl. Portions of Rep. & Opinions of Def. Experts Marc Cleven & Stuart J. Fiske (“Cleven & Fiske Excl. Mem.”) 11, Docket Entry No. 8203.) They cite to testimony from Mr. Cleven and Dr. Fiske indicating that they are not experts in evaluating business cases and did not employ objective standards in determining when the business case justified moving to EMV. (*Id.* at 11–13.) The 7-Eleven Plaintiffs and The Home Depot claim that Mr. Cleven and Dr. Fiske did not limit their opinions to describing issuers’ and merchants’



perceptions but rather “opine as to the lack of a business case as an objective matter.” (Reply Mem. of Law in Further Supp. of 7-Eleven Plaintiffs, The Home Depot, & Elgin Ave. Recovery, LLC’s Mot. to Excl. Portions of Reps. & Opinions of Def. Experts Marc Cleven & Stuart J. Fiske (“Cleven & Fiske Excl. Reply”) 3 & n.2, Docket Entry No. 8232.) They also argue that Mr. Cleven and Dr. Fiske’s “discussion of the supposed lack of a ‘business case’ for migrating to EMV in the U.S. is nothing but an impermissible regurgitation of Defendants’ preferred factual narrative.” (*Id.* at 3.)

Defendants respond, first, that Mr. Cleven and Dr. Fiske are rebuttal experts, who “‘may properly’ be limited to ‘criticizing’ the opinions ‘presented by another party’ without ‘offer[ing] a competing analysis.’” (Defs.’ Mem. of Law in Opp’n to 7-Eleven Pls.’ & The Home Depot’s Mot. to Excl. Portions of Reps. & Opinions of Def. Experts Marc Cleven & Stuart J. Fiske (“Cleven & Fiske Excl. Opp’n”) 9, Docket Entry No. 8210.) In particular, they claim that “Mr. Cleven’s and Dr. Fiske’s criticisms that Mr. Karimzadeh overlooked material factors . . . are classic rebuttal testimony that will reliably assist the jury in assessing Mr. Karimzadeh’s work.” (*Id.* at 11.) They also argue that neither Mr. Cleven nor Dr. Fiske “purported to undertake a so-called ‘business case’ analysis to show that issuers and merchants were somehow ‘objectively’ correct in that view.” (*Id.* at 12.) Defendants argue that, by claiming that the U.S. business case for EMV did not crystallize until the 2011–2012 period, Mr. Cleven was “convey[ing] the (undisputed) market reality that issuers and merchants did not support EMV” until that time and that he sought “not to confirm whether those entities’ assessments were correct, but rather to describe industry dynamics and attitudes towards EMV at the time.” (*Id.* at 12–13.) They also claim that Mr. Cleven did not “identify 2011–2012 as a bright line of demarcation for when all industry participants perceived a business case.” (*Id.*) Similarly, Defendants contend that Dr.

Fiske did not opine as to the formation of a “business case” but rather “identified the factors that *Mr. Karimzadeh* failed to consider” and “explained that relevant factors changed over time in favor of EMV.” (*Id.* at 13–14 (emphasis in original).) Defendants also argue that Mr. Cleven and Dr. Fiske are qualified to rebut Mr. Karimzadeh’s opinions. (*Id.* at 14.) With regard to Mr. Cleven, they note that he “has worked in the payments industry for over [thirty-five] years and was active in a number of EMV-related working groups since 1995, including the cross-industry EMV Migration Forum,” has “served as a ‘senior business leader involved in the US EMV migration,’” and “had active discussions with issuers and merchants to try to convince them of the business case for EMV.” (*Id.* at 15.) Dr. Fiske has “worked in the security technology space since 1980, and in smart card for technology for [twenty] years,” has “provided assistance to firms on both the merchant and issuer sides of the payments market, as well as to networks themselves,” in EMV implementation, and “specifically provided technical consulting to a Canadian payment network as it developed its EMV business case.” (*Id.* at 16.)

At his deposition, Mr. Cleven was asked whether there are “accepted methodologies that [he is] aware of for determining when a business case crystallizes.” (Videotaped Dep. of Marc Cleven (“Cleven Dep.”) 185:1–3, annexed to Szanyi Decl. as Ex. DDX-112, Docket Entry No. 8547-1; *see also* Cleven Dep., annexed to Glist Decl. as Ex. 9, Docket Entry No. 8486-9.) Mr. Cleven replied that the crystallization of a business case is “not an objective term” but rather “a description of achieving a usable business case.” (*Id.* at 185:5–14.) He was then asked whether he was aware of “methodologies for determining when a business case is usable versus not usable.” (*Id.* at 185:15–18.) Mr. Cleven replied that there may be “objective standards for evaluating when your business case . . . is an effective means of encouraging people to move forward and . . . part of the measure is do they, in fact, agree with the business case and move

forward or do they not.” (*Id.* at 186:12–20.) He agreed that evaluating a business case is “not [his] expertise” and that he is “not an expert” in “business cases as we understand them.” (*Id.* at 186:21–187:8.) Mr. Cleven testified that he had not focused on “when Visa believed there was a business case to migrate to EMV in the US” because he “wasn’t involved in the development in the internal business case, so [he didn’t] want to speculate on what they did or didn’t do.” (*Id.* at 188:22–189:17.)

At his deposition, Dr. Fiske was asked, “What is the business case?” (Videotaped Dep. of Stuart Fiske (“Fiske Dep.”) 68:16–17, annexed to Carney Decl. as Ex. DDX113, Docket Entry No. 8547-1.) He replied that “when you’re migrating any country, but particularly a very large country like the U.S., there needs to be a consensus amongst all the stakeholders in the industry that it makes sense to incur all the costs that would be associated with a migration in order to realize the benefits further down.” (*Id.* at 68:18–24.) He said that this was what he meant when he “colloquially” used the term “business case.” (*Id.* at 68:25–69:2.) Dr. Fiske said that because there was no single industry-wide coordinating body in the U.S., there needed to be “individual business cases constructed not only for payment card networks who were able to look at both the issuing and the acquiring side, but also for individual stakeholders, both card issuers and acquirers and merchants.” (*Id.* at 69:3–23.) He testified that he did not have an “objective definition” of “when a business case justifies moving to EMV.” (*Id.* at 72:17–21.) Dr. Fiske also testified that he saw “business cases that were aimed at having conversations with the other stakeholders to see if there would be a consensus to move to EMV.” (*Id.* at 116:9–13.) Later in the deposition, Dr. Fiske was asked if Visa “gain[ed] a consensus about moving before it made its announcement to migrate in the U.S.” (*Id.* at 214:13–15.) He replied that he had not “seen any documents that [he could] remember” to directly answer the question, but that it seemed to

him, “given the amount of time that both the schemes had spent figuring out how and when to move to EMV, that it is unlikely that Visa would have made an announcement without being confident that there was such a consensus.” (*Id.* at 214:17–24.) Dr. Fiske had not seen evidence that Visa gained consensus with Mastercard before making its announcement. (*Id.* at 215:8–13.)

The Court agrees with Defendants that Mr. Cleven and Dr. Fiske need not undertake an objective “business case” analysis in order to opine about merchants’ and issuers’ receptivity to the EMV migration. As described above in relation to Professor Murphy, an expert’s opinion is not “a subjective analysis without any methodological constraints” merely because it does not take the form of a specific study or calculation. *Bricklayers*, 752 F.3d at 95. Rather, an expert may apply theory or expertise to the facts of the case, as Professor Murphy applies theories about fragmentation. (*See* Murphy Rep. ¶ 291). While “[e]xpert testimony must rest on ‘more than subjective belief or unsupported speculation,’” *Washington v. Kellwood Co.*, 105 F. Supp. 3d 293, 307 (S.D.N.Y. 2015) (quoting *Daubert*, 509 U.S. at 599), “the presence of a subjective element in a technical expert’s field does not operate as an automatic bar to admissibility,” *United States v. Johnson*, No. 16-CR-281, 2019 WL 1130258, at \*18 (S.D.N.Y. Mar. 11, 2019) (quoting *United States v. Simmons*, No. 16-CR-130, 2018 WL 1882827, at \*5 (E.D. Va. Jan. 12, 2018), report and recommendation adopted, 2018 WL 658693 (E.D. Va. Feb. 1, 2018)).

Mr. Cleven’s and Dr. Fiske’s opinions about the business case for the U.S. EMV migration arise in the context of their opinions that the timing of the U.S. EMV migration was “reasonable.” (*See* Cleven Rep. ¶¶ 22, 68–81; Fiske Rep. ¶¶ 11, 81–91.) Both opine that the business case did not support an earlier EMV migration because of the high cost of migration and relatively low U.S. fraud rates, and critique Mr. Karimzadeh’s opinions about interoperability issues. (*See* Cleven Rep. ¶¶ 69, 80–81; Fiske Rep. ¶¶ 84, 87.) The Court

concludes that Mr. Cleven and Dr. Fiske are qualified to offer these opinions. As Defendants argue, both Mr. Cleven and Dr. Fiske have professional experience with the EMV migration, including Mr. Cleven's experience as a "senior business leader involved in the US EMV migration," (Cleven Dep. 21:11-14), and Dr. Fiske's experience "providing technical consultancy" to a Canadian firm "during the development of the business case for migrating to EMV," (Fiske Rep. ¶ 6). Although neither expert is necessarily an expert in business or "business cases," (*see* Cleven Dep. 186:21–187:8), and would not necessarily be qualified to offer sophisticated economic analyses of the business case for EMV migration, the Court concludes that Mr. Cleven and Dr. Fiske are qualified to render the opinions discussed in their reports.

Nor do Mr. Cleven and Dr. Fiske "impermissibl[y] regurgitat[e] [] Defendants' preferred factual narrative." (Cleven & Fiske Excl. Reply 3 (citing *In re Longtop Fin. Techs. Ltd. Sec. Litig.*, 32 F. Supp. 3d 453, 460 (S.D.N.Y. 2004))). It is true that an expert "may not simply recite a factual narrative from one party's perspective, granting it credibility, when he has no personal knowledge of the facts addressed." *SLSJ, LLC*, 277 F. Supp. 3d at 280. The Court concludes, however, that Mr. Cleven and Dr. Fiske are not merely reciting facts but presenting opinions about the timing of the U.S. EMV migration — opinions that are supported by facts in the record, but also informed by Mr. Cleven's and Dr. Fiske's experience with these complex issues. The U.S. EMV migration is not a "lay matter[] which a jury is capable of understanding and deciding without the expert's help," but a multifaceted phenomenon potentially implicating technological, security, fraud, and international concerns. *Andrews v. Metro N. Commuter R.R. Co.*, 882 F.2d 705, 708 (2d Cir. 1989) (stating that expert testimony must be "directed to matters within the witness's scientific, technical, or specialized knowledge" and not to matters within the

competence of a lay jury). Mr. Cleven and Dr. Fiske do not simply recite facts, but identify what they claim are omissions and inaccuracies in Mr. Karimzadeh's report, which is beyond the purview of a layperson. (*See* Cleven Rep. ¶¶ 18, 22; Fiske Rep. ¶ 11.) The weaknesses the 7-Eleven Plaintiffs and The Home Depot identify in Mr. Cleven's and Dr. Fiske's opinions and testimonies, such as Dr. Fiske's inability to dispute internal Mastercard documents "showing that Mastercard, in fact, believed that there was a 'business case' for EMV many years before Mastercard announced migrating the U.S. to EMV in 2012," can be properly examined on cross-examination.<sup>11</sup> (Cleven & Fiske Excl. Mem. 12); *Daubert*, 509 U.S. at 596 ("Vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence.").

Accordingly, the Court does not exclude Mr. Cleven's and Dr. Fiske's "business case" opinions.

## 2. Comparison of fraud data

The 7-Eleven Plaintiffs and The Home Depot claim that the only "empirical analysis" supporting Mr. Cleven's and Dr. Fiske's opinions is a comparison of 2004 fraud levels in the U.S. and the U.K. (Cleven & Fiske Excl. Mem. 13.) They argue that the U.S. issuer data measures net issuer fraud, while the U.K. fraud data measures "overall or *gross* fraud." (*Id.* at 14.) The 7-Eleven Plaintiffs and The Home Depot point to testimony from Mr. Cleven's and Dr. Fiske's depositions in which they acknowledged performing an "apples to oranges" comparison or acknowledged not knowing whether they had done so or not. (*Id.* at 14–15.) They argue that in the absence of this "primary piece of empirical support," Mr. Cleven and Dr. Fiske "fail to

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<sup>11</sup> Defendants argue that these documents are irrelevant because Dr. Fiske's "opinions concern issuer and merchant considerations, not what various networks may have concluded." (Cleven & Fiske Excl. Opp'n 23.) This is a matter for cross-examination and rebuttal.

draw *any* reliable comparison between the fraud rates in the U.S. and any other country, for any time period, to support their opinion that the U.S. had ‘relatively lower’ fraud.” (Cleven & Fiske Excl. Reply 5.)

Defendants argue, first, that Mr. Cleven’s and Dr. Fiske’s opinions do not arise “from an ‘empirical analysis’ comparing fraud rates in any particular year, much less a precise statistical comparison” of 2004 U.S. and U.K. fraud rates. (Cleven & Fiske Excl. Opp’n 17.) They claim that the experts instead rely on their “general industry experience” to explain “why U.S. payments industry stakeholders viewed U.S. fraud losses to be relatively low.” (*Id.*) Defendants claim that both Mr. Cleven and Dr. Fiske used the statistic as part of a larger discussion about fraud rates and that their opinions “would stand on their own without *any* comparative fraud numbers from the U.K.” (*Id.* at 18.) Second, Defendants argue that “[r]ecord evidence . . . confirms that the U.S. fraud rate *was in fact substantially lower* than the U.K. rate in 2004” and that “the imprecision in the comparison between U.S. and U.K. fraud rates cannot justify exclusion of” Mr. Cleven’s and Dr. Fiske’s broader opinions. (*Id.* at 18–19.) Third, Defendants claim that “this specific example comparing U.S. and U.K. fraud rates was used in authoritative industry literature” and that the 7-Eleven Plaintiffs and The Home Depot’s motion acknowledges that “this specific example comes from two separate, widely cited industry sources.” (*Id.* at 19.) Defendants argue that Mr. Karimzadeh cited both of these sources and that the sources are “frequently cited as authoritative sources on payments industry data and research by leading media publications.” (*Id.* at 20.)

Mr. Cleven’s report describes the impetus for EMV in Europe and how card transactions occur differently in “an ‘online’ environment, such as that in the United States.” (Cleven Rep. ¶¶ 30–46.) He then compares the number of payment-card transactions conducted online in the



United States versus Europe, (Cleven Rep. ¶ 46), and claims that “[c]onsequently, payment-card fraud remained at relatively low rates in the United States,” (*id.* ¶ 47). In support, he claims that “for example,” in 2004 “the rate for payment-card fraud in the United Kingdom was 14 bps, while the payment-card fraud rate in the United States was only 5 bps,” and that the fraud rate on U.S. cards was lower than that on U.K. cards until 2010. (*Id.*) He cites to a working paper published by the Federal Reserve Bank of Atlanta and a report published by Aite Group, Inc. (*Id.* ¶ 47 n.59.) Mr. Cleven then cites to data showing that the fraud situation in the United States had worsened by 2011, before moving on to describing the EMV migration that began that year. (*Id.* ¶ 48.) Later in the report, Mr. Cleven argues that “the telecommunication costs and comparative fraud rates explain why EMV was adopted in the United States after it was adopted in other markets,” again citing to the 2004 comparison of U.S. and U.K. fraud rates. (*Id.* ¶ 70.) He also discusses fraud rates in other countries compared to the United States, again citing to the Federal Reserve Bank of Atlanta paper, and citing to testimony from Visa witnesses about the low fraud rates in the U.S. (*Id.* ¶¶ 71–73.)

At his deposition, Mr. Cleven was asked about Mr. Karimzadeh’s claim that the U.S. and U.K. fraud rates were not meaningfully comparable. (Cleven Dep. 224:20–225:12.) He replied that he was “not in a position to agree or disagree” with Mr. Karimzadeh’s claim. (*Id.* at 225:14–19.)

In the background section of his report, Dr. Fiske discusses payment card technology in various countries. (Fiske Rep. ¶¶ 18–32.) He compares the United States’ “online only” system to the “mixed online/offline environment” in most of Europe, and claims that in the United States, “various additional real-time security features were in place that . . . reduced the risk of payment fraud.” (*Id.* ¶¶ 30–32.) He provides the 2004 fraud rate comparisons in a footnote,

citing to the Aite Group report. (*Id.* ¶ 32 n.29; *see also* ¶ 32 n.32.) Dr. Fiske also discusses “decision support and fraud and risk management tools” that he claims “afforded U.S. issuers the ability to maintain exceptionally low rates of counterfeit and lost and stolen fraud.” (*Id.* ¶ 32.) He again uses the 2004 fraud rate comparisons in describing the EMV rollout in the United Kingdom, which he claims was “in response to the relatively high levels of card fraud in the U.K.” (*Id.* ¶ 68.) Later in his report, Dr. Fiske claims that “the key reason for the lack of an industry transition in the U.S. market” until 2011 was the low fraud rate and lack of “motivation from the payments community.” (Fiske Rep. ¶ 81.) He cites to Visa and Mastercard sources indicating that there was insufficient “industry support” for the transition to EMV, (*id.* ¶¶ 82–83), and opines that this was “reasonable” due to low U.S. fraud rates and the high cost of transition, (*id.* ¶ 84). He then moves on to describe the way that the “business case for migration strengthened” over time. (*Id.* ¶ 85.)

At his deposition, Dr. Fiske was asked whether he was “really comparing apples with oranges” in “the places in [his] report where [he] drew a comparison between U.K. fraud rates and U.S. fraud rates.” (Fiske Dep. 86:24–87:2.) He replied that at the time he wrote the paper, he “believed [he] was comparing apples with apples,” but that “having read Mr. Karimzadeh’s reply report, it appears that [he] was not.” (*Id.* at 87:3–6.) He agreed that he was “inadvertently comparing apples to oranges.” (*Id.* at 87:7–9.)

The Court agrees with the 7-Eleven Plaintiffs and The Home Depot that this specific comparison should be omitted, but does not exclude Mr. Cleven’s and Dr. Fiske’s overall discussion of fraud rates as an element of EMV migration timing. Regarding the comparison itself, Defendants do not appear to argue that net issuer fraud and gross fraud are actually comparable, but only that “the imprecision of this specific example is immaterial to the opinions

that Mr. Cleven and Dr. Fiske actually offered.” (Cleven & Fiske Excl. Opp’n 17.) There is simply no reason to allow an unhelpful “apples and oranges” comparison to be submitted to the jury. *Shatkin v. McDonnell Douglas Corp.*, 727 F.2d 202, 208 (2d Cir. 1984) (noting that where an expert compared “discounted present value” with an “undiscounted projected consumption,” “such an ‘apples and oranges’ comparison simply cannot withstand scrutiny”); *State v. Deutsche Telekom AG*, 419 F. Supp. 3d 783, 788 (S.D.N.Y. 2019) (declining to consider evidence of mergers in foreign markets in part because it would “likely yield only an apples-to-oranges comparison”); *see generally CCM Rochester, Inc. v. Federated Investors, Inc.*, No. 14-CV-3600, 2016 WL 11617452, at \*4 (S.D.N.Y. Aug. 31, 2016) (“[A] trial judge should exclude expert testimony if it is speculative or conjectural or . . . in essence ‘an apples and oranges comparison.’” (alterations in original) (quoting *Zerega Ave. Realty Corp. v. Hornbeck Offshore Transp., LLC*, 571 F.3d 206, 213–14) (2d Cir. 2009)).

However, the Court does not exclude Mr. Cleven’s and Dr. Fiske’s larger discussion of EMV migration timing or the role they believe that fraud played in the migration. While the 7-Eleven Plaintiffs and The Home Depot are correct that the 2004 comparison is essentially the only empirical data supporting Mr. Cleven’s and Dr. Fiske’s claim that fraud rates in the United States were relatively low before other countries began migrating to EMV, both experts explain why they believe fraud rates in the United States were comparatively low, explaining the difference between the United States’ “always online” system and how card transactions were processed in Europe. (*See* Cleven Rep. ¶¶ 30–46, 70–73; Fiske Rep. ¶¶ 18–32.) While this is not as compelling as data showing that fraud rates in the United States *were* low compared to those in other countries, the Court concludes that there is not “too great an analytical gap” between Mr. Cleven’s and Dr. Fiske’s explanation of how card transactions are processed and

their opinion that this led to less fraud in the United States.<sup>12</sup> *In re Air Cargo*, 2014 WL 7882100, at \*25.

Accordingly, the Court excludes only the sentences comparing U.S. and U.K. fraud data in paragraph 47 of Mr. Cleven's report and paragraphs 32 and 68 of Dr. Fiske's report.

### 3. Methodology

The 7-Eleven Plaintiffs and The Home Depot claim that Mr. Cleven and Dr. Fiske did "not employ any reliable methodology in reaching their 'lack of business case' opinions." (Cleven & Fiske Excl. Mem. 15). They identify what they describe as "crucial issues that any expert opinion conducting a rigorous and reliable analysis about the timing of the U.S. EMV migration would consider" and that Mr. Cleven and Dr. Fiske allegedly disregard. (Cleven & Fiske Excl. Reply 7.)

#### A. Additional fraud data

The 7-Eleven Plaintiffs and The Home Depot argue, first, that "neither Mr. Cleven nor Dr. Fiske consider Visa or Mastercard documents to verify the fraud rates asserted in their opinions, despite having access to voluminous fraud data compiled by both networks," and that had they done so, "they would have discovered that the two sources they cite are unreliable and contradicted by other sources." (Cleven & Fiske Excl. Mem. 15.) They further claim that "Mr. Cleven and Dr. Fiske also do not compare the U.S. fraud rate to those of other countries that moved to EMV technology, other than the U.K" and that "the U.S. fraud rate in 2004 far

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<sup>12</sup> In their motions, Defendants argue that "[r]ecord evidence . . . confirms that the U.S. fraud rate *was in fact substantially lower* than the U.K. rate in 2004," (Cleven & Fiske Excl. Opp'n 19), while the 7-Eleven Plaintiffs and The Home Depot argue that "Mr. Karimzadeh explains that U.S. fraud was as bad or worse than fraud in other countries, including those with similar 'online' authorization systems such as Canada and Australia," (Cleven & Fiske Excl. Reply 4 n.4). These are appropriate matters for cross-examination and rebuttal.

exceeded the fraud rates that spurred Visa and Mastercard to announce EMV migrations in other countries.” (*Id.* at 16–17.)

In response, Defendants argue that Mr. Cleven and Dr. Fiske “identified multiple factors in addition to relative fraud rates that distinguished the U.S. from other countries,” including the size and complexity of the U.S., other available security tools, and the role of government, and that “[t]hese critiques track the explanations by other experts in the field as to why the U.S. migrated to EMV later than countries like Canada, Australia, and the Netherlands, which also had relatively low fraud.” (Cleven & Fiske Excl. Opp’n 21.)

As described above, the Court excludes the inaccurate comparison between U.S. and U.K. fraud rates. However, it does not take Mr. Cleven’s and Dr. Fiske’s failure to identify this inaccuracy as a basis to exclude additional portions of the experts’ reports, particularly given that, as Defendants argue, this comparison “comes from two separate, widely cited industry sources.” (Cleven & Fiske Excl. Opp’n 19.)

Nor does the Court exclude portions of Mr. Cleven’s and Dr. Fiske’s reports on the basis that they fail to compare the U.S. fraud rate to the fraud rate in other countries. Although it is true that exclusion is warranted “[w]here an expert excludes evidence that is highly relevant to his conclusion,” *In re Mirena Ius Levonorgestrel-Related Prods. Liab. Litig.*, 341 F. Supp. 3d 213, 242 (S.D.N.Y. 2018), the Court does not find that Mr. Cleven and Dr. Fiske must compare the United States’ fraud rate to the fraud rate of “every other developed country in the world” simply because Mr. Karimzadeh opined that “every other developed country in the world (not just the U.K.) had moved to EMV technology long before the U.S.” (Cleven & Fiske Excl. Mem. 16 (emphasis omitted)). As Defendants argue, Mr. Cleven and Dr. Fiske do compare the United States to other countries including Canada, France, the Netherlands, and Australia, (Cleven Rep.

¶¶ 71–72, 74; Fiske Rep. ¶¶ 62–80), as well as citing to sources indicating that the United States was viewed as unique from a fraud perspective, (Cleven Rep. ¶ 73, Fiske Rep. ¶ 83). This is a sufficient basis to conclude that Mr. Cleven and Dr. Fiske do not “lack[] ‘good grounds’ for [their] conclusions,” although the 7-Eleven Plaintiffs and The Home Depot may present any contrary evidence on cross-examination. *Amorgianos*, 303 F.3d at 267.

## **B. Earlier data breaches**

The 7-Eleven Plaintiffs and The Home Depot claim that Mr. Cleven opined that the business case for EMV did not crystallize until 2011–2012 because more U.S. data breaches started to occur after that date. (Cleven & Fiske Excl. Mem. 18.) They argue that despite only citing to data breaches occurring in 2013 or later in his report, Mr. Cleven acknowledged at his deposition that he “knew of many other data breaches occurring prior to 2013.” (*Id.* at 18.) Mr. Cleven stated that he did not include these earlier data breaches in his report because they “did not ‘capture[] the public awareness,’” but the 7-Eleven Plaintiffs and The Home Depot claim that his stated methodology of whether “[his] mom was aware of the breach” is inadequate. (*Id.* (first alteration in original).)

Defendants argue that Mr. Cleven’s report acknowledged the pre-2013 data breaches and in fact “expressly attributed the timing of the networks’ 2011-2012 EMV announcements, in part, to ‘the increasing number of data breaches’ *prior to 2011*.” (Cleven & Fiske Excl. Opp’n 22 (emphasis in original).) They claim that Mr. Cleven discussed the “2013 or later” data breaches separately to explain that the 2013 Target data breach was “viewed as a ‘tipping point’ that finally created ‘a sense of urgency’ for EMV among issuers and merchants.” (*Id.*)

At his deposition, Mr. Cleven was asked whether he had done “any research with respect to the fraud situation in the US prior to 2011.” (Cleven Dep. 104:4–7.) He said that he had. (*Id.*

at 104:7.) He was then asked whether there was a reason why he did not “refer to data breaches prior to 2013.” (*Id.* at 104:25–105:1.) He replied:

So I know I refer to other data breaches, but I don’t remember the ones — so part of it might be to say data breaches that have reached the level of being part of the general conversation, being part of the consumer perception, being part of the government perception issues, whether — certainly there were an increasing number of data breaches that were in the public awareness.

I can’t say that I counted the number of breaches per year and made sure that there was an increasing rate for this time period.

(*Id.* at 105:2–15.) Opposing counsel then asked Mr. Cleven whether he had cited to any breaches other than “Target in 2013, Home Depot in 2014 and Michael’s in 2014.” (*Id.* at 105:16–24.) He said that he “d[idn’t] believe [he] called out any [other breaches] in particular.”

(*Id.* at 105:25–106:1.) He “did build a timeline of data breaches,” but did not “remember much why [he] didn’t use that timeline.” (*Id.* at 106:4–7.) He said that the point was that it “was getting worse at this time and worse to [him] included public perception which [he] really did not emphasize here.” (*Id.* at 106:7–10.) Opposing counsel again asked why he decided not to use the timeline, to which Mr. Cleven responded:

Just largely because of the — I remember seeing — you know, the idea I was going for is that things are becoming worse. I looked at the chart and said things look to me to [be] becoming worse based on this timeline, but do I really want to focus in on this time period roughly in 2011 and you know — so I mean one factor in the breaches was the public perception, the government perception. I mean you know President Obama made a comment about EMV. He hadn’t despite these earlier breaches. So seeing people in general that there was a feeling, a security issue in general in the US.

(*Id.* at 107:2–16.) Mr. Cleven acknowledged that a breach at TJX Companies in 2007 “caused a lot of public concern” and “was one of the early wake up calls.” (*Id.* at 108:2–16.) He also remembered “the data processors international breach,” the “card systems solution” breach, and the “Heartland payments breach,” and acknowledged that at least some of them were on his

timeline. (*Id.* at 108:17–109:12.) Opposing counsel asked why these breaches were not referenced in his report. (*Id.* at 109:11–12.) Mr. Cleven responded that he did not feel that those breaches “had captured the public awareness” and that “in the 2011 time frame, it reached a much more general sense, a much larger scope and just a sense that there were multiple areas of security exposures and what would the industry as a whole do to start addressing all these different areas.” (*Id.* at 109:13–110:1.) Opposing counsel asked whether Mr. Cleven was “relying on [his] recollection of these earlier breaches” to “determine whether or not there was public awareness or industry awareness.” (*Id.* at 110:2–5.) Mr. Cleven replied that he was “[t]o some degree,” as well as relying on “what [he] was approached about in interactions with merchants and other members of the payment industry” as a Visa employee. (*Id.* at 110:6–10.) He did not remember being “approached by merchants in respect to data breaches prior to 2011.” (*Id.* at 110:11–15.) When opposing counsel asked how he measured “the effect of the breaches and the perceptions on issuers, merchants and acquirers,” Mr. Cleven replied that he did not “remember any kind of objective studies where somebody went out and . . . did a research study.” (*Id.* at 111:6–11.) Rather, whether “[his] mom was aware of the breach is a pretty good indicator that it had reached public awareness. There was a qualitative change when [he] was a member of the EMV migration forum after the Target data breach.” (*Id.* at 111:12–17.)

The Court does not exclude Mr. Cleven’s business case analysis due to his failure to reference specific breaches prior to 2013. As Defendants argue, (Cleven & Fiske Excl. Opp’n 22), Mr. Cleven’s report refers to an “increasing number of data breaches” “[b]y 2011,” (Cleven Rep. ¶ 48), and he cites to a source that quotes a 2011 report claiming breaches were “on [the] rise in many areas,” (*id.* ¶ 48 n.61). He then refers to three specific post-2013 breaches and claims that such breaches were a “tipping point” that “changed the conversation around EMV,”



citing to a Visa witness's testimony that "after the Target data breach, there was a little more industry focus on moving to EMV . . . as well as all the stakeholders in the industry to make sure that we were solving for the potential fraud." (*Id.* ¶ 51 & n.71.) It is therefore not the case that Mr. Cleven ignored "the damage caused by largescale data breaches prior to 2013"; indeed, he credits such breaches in part for Visa's 2011 decision to EMV. (Cleven & Fiske Excl. Reply 7.) The fact that Mr. Cleven does not refer to *specific* pre-2013 breaches, but rather to the "increasing number of data breaches" occurring "[b]y 2011," is not sufficient grounds to exclude his opinions. (Cleven Rep. ¶ 48.)

Of greater concern is Mr. Cleven's testimony that he evaluated public and industry awareness of data breaches based on his own recollection and "what [he] was approached about in interactions with merchants and other members of the payment industry." (Cleven Dep. 110:2–10.) In general, "[a]n anecdotal account of one expert's experience, however extensive or impressive the numbers it encompasses, does not by itself equate to a methodology, let alone one generally accepted by the scientific community." *Berk v. St. Vincent's Hosp. & Med. Ctr.*, 380 F. Supp. 2d 334, 352 (S.D.N.Y. 2015); *see also Algarin v. N.Y.C. Dep't of Corrs.*, 460 F. Supp. 2d 469, 477 (S.D.N.Y. 2006) (excluding expert opinions where the expert's conclusion was "not the product of the application of any analytic method, aside from [the expert's] personal experience"). Because Mr. Cleven does not solely rely on his own experience, but cites in his report to two sources supporting his opinions that card breaches were on the rise in 2011 and that the 2013 Target breach inspired a greater focus on EMV migration, (*see* Cleven Rep. ¶ 48 n.62, ¶ 51 n.71), the Court does not exclude his opinions about data breaches. His lack of a more rigorous methodology is certainly a weakness to be exploited on cross-examination. *Daubert*, 509 U.S. at 596 ("Vigorous cross-examination, presentation of contrary evidence, and careful

instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence.”).

### C. Additional costs of fraud

The 7-Eleven Plaintiffs and The Home Depot claim that Dr. Fiske fails to consider “the cost of fraud that EMV prevents, such as the funding of drug cartels, human trafficking, and terrorism,” despite acknowledging that “there are social costs associated with fraud which ought to mean that it makes more sense for the payment industry to spend more money on reducing fraud.” (Cleven & Fiske Excl. Mem. 19.)

Defendants claim that “the opinion to which Dr. Fiske responded — Mr. Karimzadeh’s opening report — did not discuss” costs of fraud such as human trafficking and terrorism. (Cleven & Fiske Excl. Opp’n 22.) “Nor do Plaintiffs offer any evidence that U.S. issuers or merchants considered broader societal costs of fraud in assessing their own business needs for EMV.” (*Id.*)

At his deposition, Dr. Fiske was asked whether he agreed that payment fraud has “real-world consequences” that “go beyond what shows up on a spreadsheet.” (Fiske Dep. 97:19–98:2.) He replied that “you can’t just look at the costs and the benefits” and that “there are social costs associated with fraud which ought to mean that it makes more sense for the payment industry to spend more money on reducing fraud than the actual value of the fraud itself.” (*Id.* at 98:3–12.) However, Dr. Fiske then stated that in his “personal view,” “the responsibility for driving down those social costs actually rests with government rather than with commercial organizations.” (*Id.* at 98:13–22.) When asked what he meant by “social costs” associated with fraud, Dr. Fiske replied that “the industry should care about fraud that’s scalable,” by which he meant “fraud that goes to organized crime groups,” and that this fraud causes “social costs” when

the proceeds go to “stuff” like “drugs” and “prostitution.” (*Id.* at 99:3–23.) He added that he knows “nothing about” these criminal activities. (*Id.* at 99:23–25.) Dr. Fiske did not consider the social costs of payment fraud for the purpose of the opinions expressed in his report. (*Id.* at 101:4–7.)

Dr. Fiske was not required to consider the social costs of payment card fraud in his opinions. Defendants are not entirely correct that Mr. Karimzadeh’s report did not discuss the possibly criminal consequences of a delayed EMV migration, (*see* Clarke & Fiske Opp’n 22), as Mr. Karimzadeh discusses this issue briefly in a footnote, (Karimzadeh Rep. ¶ 13 n.3). There is no requirement, however, that a rebuttal report address every opinion expressed in the report it replies to. The 7-Eleven Plaintiffs and The Home Depot may argue at trial that Defendants should have migrated the U.S. to EMV earlier in order to mitigate the social consequences of payment card fraud, but Dr. Fiske is not required to share this opinion. To the extent the 7-Eleven Plaintiffs and The Home Depot are arguing that Dr. Fiske *does* share this opinion, that is not at all clear from Dr. Fiske’s deposition; Dr. Fiske stated that he believes it is the government’s responsibility to “drive[] down these social costs,” and emphasizes that he knows “nothing about” social costs like drugs and prostitution. (Fiske Dep. 98–99.) The 7-Eleven Plaintiffs and The Home Depot may cross-examine Dr. Fiske further about his decision not to consider social costs in his analysis, but Dr. Fiske’s failure to do so is not grounds for excluding his opinions.

#### **D. Network motivations**

The 7-Eleven Plaintiffs and The Home Depot claim that Dr. Fiske “did not look into” whether Visa and Mastercard delayed EMV in the U.S. to protect their own profits. (Cleven & Fiske Excl. Mem. 19.)

In response, Defendant argue that Dr. Fiske “is not proffered as an expert on the motivations of the networks” but rather to explain why issuers and merchants did not support an earlier EMV migration. (Cleven & Fiske Excl. Opp’n 23.)

The Court agrees with Defendants. First, as described in the Court’s order on the motions to exclude the expert testimony of Mr. Karimzadeh, Professor Carlton, Mr. Mott, and Professor Stowell, Mr. Karimzadeh may not testify to Visa and Mastercard’s motivations in delaying the EMV migration, although he may testify that the delay had the effect of protecting Visa and Mastercard’s profits. Dr. Fiske similarly may not testify to the networks’ motivations. Second, even if both Mr. Karimzadeh and Dr. Fiske were allowed to testify about Visa and Mastercard’s motivations, there is no requirement that a rebuttal report address every opinion expressed in the report it responds to.

#### **iv. Mr. Cleven’s opinion on the EMV liability shift**

The 7-Eleven Plaintiffs and The Home Depot claim that Mr. Cleven’s opinion that the timing of the EMV liability shift was “reasonable” is “based purely on the reasoning that, because *some* merchants met this deadline, the vast majority could have done the same.” (Cleven & Fiske Excl. Mem. 20.) They argue that he “did nothing to investigate this issue” and did not “even assess facts relevant to reaching such a conclusion.” (*Id.*)

Defendants respond, first, that the 7-Eleven Plaintiffs and The Home Depot “ignore entirely Mr. Cleven’s report,” which they claim identified four factors “to show the

reasonableness of the four-year timeline.” (Cleven & Fiske Excl. Opp’n 23–24.) Second, they argue that even if Mr. Cleven’s rebuttal had rested entirely on the fact that some merchants met the deadline, this still would have been “a valid rebuttal opinion.” (*Id.* at 25.)

At his deposition, Mr. Cleven agreed that he had opined that “the amount of time provided from August 2011 to October 2015 was sufficient for merchants to become compliant.” (Cleven Dep. 31:22–32:2.) Asked what he “base[s] that opinion on,” Mr. Cleven said that “one of the things is . . . the fact that a certain number of [merchants] did [achieve the deadline].” (*Id.* at 32:4–15.)

The Court does not exclude Mr. Cleven’s opinions on the timing of the EMV liability shift. As Defendants argue, Mr. Cleven gives four reasons for disagreeing with “Mr. Karimzadeh’s proposed solution to delay EMV implementation in the United States.” (Cleven Rep. ¶¶ 24, 106.) First, he argues that “[d]elaying the liability shift would have . . . slowed merchant migration to EMV, leading to more counterfeit fraud.” (*Id.* ¶ 106.) Next, he argues that Mr. Karimzadeh “looks at the liability-shift timelines in EMV migrations in other markets while ignoring how those timelines were related to the goals and experiences of those markets,” and that “the liability-shift timelines in certain European and other markets appear longer because those EMV migrations were more complex.” (*Id.* ¶ 108.) Third, Mr. Cleven argues that Visa “did not ‘contribute’ to nor should it reasonably have ‘anticipated’ the certification bottlenecks” and that “many of the certification issues stemmed from acquirer-processor delays.” (*Id.* ¶¶ 109–111.) Fourth, he argues that “these delays related to debit specification should not have been a factor in EMV migration for merchants that do not accept PIN-authenticated debit.” (*Id.* ¶ 112.)

The 7-Eleven Plaintiffs and The Home Depot argue that “the portions of Mr. Cleven’s report cited by Defendants as ‘other factors’ bearing on the reasonableness of the timeline primarily concern who was to blame for EMV implementation delays in the U.S.,” which “has nothing to do with whether it was reasonable to impose a nearly impossible deadline on U.S. merchants.” (Cleven & Fiske Excl. Reply 10.) The Court disagrees. While Mr. Cleven does argue that acquirer-processors caused many of the delays, he makes this argument in order to rebut Mr. Karimadeh’s claims that Visa “contribute[d]” to or should have “anticipated” the certification bottlenecks. (Cleven Rep. ¶¶ 109–11.) His implication is clearly that because Visa did not cause these delays, and because the certification process happened much more quickly in other countries like the U.K., (*id.* ¶ 109), Visa could not have considered these delays when setting its liability shift deadline. Mr. Cleven’s other reasons do not concern who is to blame for EMV implementation delays.

The Court is also not concerned about Mr. Cleven’s deposition testimony that the liability shift deadline was appropriate because “a certain number of merchants were, in fact, able to achieve that date.” (Cleven Dep. 35:15–36:4.) Regardless of whether this constitutes an expert methodology that meets the standard of *Daubert*, Mr. Cleven does not rely on this reasoning in his report. As a rebuttal expert, Mr. Cleven structured his report to *disagree* with Mr. Karimadeh’s opinions about the reasonableness of the EMV liability shift, not to offer an affirmative opinion that the liability shift deadline was reasonable. This is an acceptable rebuttal opinion. *See Capri Sun GMBH*, 2022 WL 976270 at \*25 (“A rebuttal expert, by nature, criticizes the methodology and/or opinions of another. There is no requirement that a rebuttal expert himself offer a competing analysis.”). Mr. Cleven gives four reasons to counter Mr.

Karimzadeh's opinion that the EMV liability shift deadline should have been delayed. He is not required to also offer an analysis showing that the liability shift deadline was reasonable.

#### **v. Conclusion**

The Court grants the 7-Eleven Plaintiffs and The Home Depot's motion as to the sentences comparing U.S. and U.K. fraud data in paragraph 47 of Mr. Cleven's report and paragraphs 32 and 68 of Dr. Fiske's report, and otherwise denies the motion.

#### **d. Motion for joinder in motions to exclude**

Elgin moves to exclude the reports and opinions of Professor Hubbard, Professor Kahn, and Dr. Teece, and portions of the reports and opinions of Mr. Cleven, Dr. Fiske, Mr. Harvey, Mr. Kaplan, and Professor Murphy. (Elgin Excl. Joinder Mot.) It also "hereby joins in full" the evidence and memoranda in support of the motions to exclude these experts.<sup>13</sup> (*Id.* at 2.) Elgin argues that the arguments and evidence to exclude these experts "apply equally to Elgin as they do to the Direct Action Plaintiffs" because the experts' opinions are "adverse to expert reports and opinions proffered jointly by Elgin and the Direct Action Plaintiffs." (*Id.* at 3.)

Sears Holding Corporation moved to amend the captions and substitute Elgin for Sears in this action and the relevant member cases in October of 2019, (Mot. to Substitute Party, Docket Entry No. 7741), and Judge Orenstein granted the motion in November of 2019, (Minute Order dated Nov. 7, 2019, Docket Entry No. 7773). Elgin and the 7-Eleven Plaintiffs have since "reached an agreement where Elgin will separately retain the 7-Eleven Action Plaintiffs' experts to proffer opinions." (Letter Regarding Status Update dated May 26, 2020, Docket Entry No. 7949.) Elgin filed its motion to exclude and to join the memoranda and evidence in support of

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<sup>13</sup> With respect to Professor Murphy, Elgin Ave. Recovery, LLC joins The Home Depot and the 7-Eleven Plaintiffs' motion to exclude portions of Professor Murphy's report and opinions. (Joinder Mot. 3.)

the motions to exclude on December 21, 2020, (Elgin Excl. Joinder Mot.), before the deadline to file papers associated with the parties' *Daubert* motions, (Order dated Dec. 4, 2020). Given Elgin's interests in this matter, and the fact that Defendants have not objected to its request to join in the motions, the Court finds that permitting Elgin to join in the motions "would be reasonable and would aid the Court in efficiently resolving the matters at issue." *Nike, Inc. v. Wu*, 349 F. Supp. 3d 310, 320 (S.D.N.Y. 2018) (allowing party to join motion to quash even where it was untimely). Elgin is therefore considered a moving party as to these motions, and the outcome of these motions will apply to Elgin.

### III. Conclusion

For the foregoing reasons, the Court grants The Home Depot and the 7-Eleven Plaintiffs' motion to exclude portions of paragraph 47 of Mr. Cleven's report and paragraphs 32 and 68 of Dr. Fiske's report. The Court otherwise denies Home Depot and the 7-Eleven Plaintiffs' motions to exclude expert testimony. The Court also grants Elgin's motion to join the arguments and evidence to exclude the reports and opinions of Professor Hubbard, Professor Kahn, and Dr. Teece, and portions of the reports and opinions of Mr. Cleven, Dr. Fiske, Mr. Harvey, Mr. Kaplan, and Professor Murphy.

Dated: October 8, 2022  
Brooklyn, New York

SO ORDERED:

/s/ MKB  
\_\_\_\_\_  
MARGO K. BRODIE  
United States District Judge